MONTANA BOARD OF MILK CONTROL

MARKET ADMINISTRATION & INDUSTRY REPORT

FISCAL YEAR 2020
ENDED JUNE 30, 2020

SEPTEMBER 2020

MONTANA DEPARTMENT OF LIVESTOCK

MILK CONTROL BUREAU

CHAD LEE & MARK CURTIS

MONTANA BOARD OF MILK CONTROL

MARKET ADMINISTRATION & INDUSTRY REPORT

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EXECUTIVE SUMMARY

The purpose of the Milk Control Bureau (Bureau) collecting and reporting information on Montana's milk industry is to provide insights and objective quantitative information to the Board of Milk Control (Board) to assist it in monitoring and understanding the industry to support policy development and deliberations.

The Milk Control Act (Act) (Title 81, chapter 23, MCA) requires the Board to supervise, regulate, and control the milk industry. The act requires the Montana Department of Livestock to assist in investigating matters, to bring proceedings to enforce orders of the Board, and to provide staff to assist in technical, enforcement, and regulatory activities.

The Act includes specific provisions enacted to support its policy goals, including:

- mandatory licensing of businesses that produce or distribute milk in Montana;
- assessments to fund the administration and enforcement of the Act;
- establishment of minimum prices to be paid for raw milk according to how the milk is utilized, referencing federal milk classifications;
- authorization for a quota plan and a statewide pooling arrangement;
- governance of fair trade practices, setting forth four specific trade practice prohibitions;
- expression of legislative intent that milk produced outside of state is subject to the Act the instant that the milk is subject to regulation by the state; and
- statement that the Act does not supersede or interfere with federal law regulating interstate commerce.

Significant activity transpired for the Board, the Producer Committee, and the Bureau in fiscal year 2020. The Board membership and Producer Committee membership did not change during the fiscal year.

The Board held three public meetings (December 13, 2019; April 9, 2020; and May 13, 2020). The meetings in 2020 were held via Zoom due to the COVID-19 pandemic. The Board

- amended ARM 32.24.450 to reduce fiscal year 2021 milk control assessment rates by 8.3%;
- adopted a temporary emergency rule on April 9, 2020 to enable COVID-19-related dumped milk to be treated as a sale of bulk surplus milk (with $0.00 proceeds) to spread the economic impact to all pool producers instead of being borne by individual producers;
- received input from industry to not begin the rulemaking process to make the temporary emergency rule regarding dumped milk a permanent rule;
- took no action on a Bureau recommendation to eliminate the Producer Committee after considering industry comments, which were split over the issue;
- received information about milk donations in general and the specific donation to the Montana Food Bank Network that members of the Montana Milk Producers Association (MMPA) made in April 2020;
- discussed the impact of the November 2019 Dean Foods Chapter 11 bankruptcy filing on the Board, Bureau, and Montana producers;
- discussed the formation of an informal ad hoc committee of producers to work through milk

market regulation policy issues and provide recommendations to the Board; and
- authorized the Board Chair, on an ongoing basis, to approve out-of-state travel requests by Department of Livestock employees representing the Board. (Such approval is subject to final approval by the Board of Livestock.)

Subsequently, the temporary emergency rule adopted on April 9, 2020 lapsed on August 7, 2020 after being in effect for 120 days. The emergency rule was only used in April, when 106,146 lbs (approximately 12,350 gallons) of milk was dumped that was subject to the rule (0.5% of April 2020 Montana pool production).

The Producer Committee met four times via conference call and approved six quota transfer requests.

Bureau highlights for fiscal year 2020 include:
- Successfully completing Bureau processes within normal timeframes and shouldering an increased workload that was in partly driven by the COVID-19 pandemic despite staff being socially distanced and not working from the same physical office.
- The Bureau benefited from several process improvement and documentation initiatives, particularly the development of a paperless audit process in time to allow the Bureau to function normally despite statewide shelter-in-place orders.
- The Dean Foods (Southern Food Group, LLC) Chapter 11 bankruptcy filing on November 12, 2019 caused the payment of amounts to producers and to the department due in November to be delayed until December. On May 1, 2020, Dairy Farmers of America (DFA) took ownership of most of Dean Foods' assets, including the Meadow Gold plants in Great Falls and Billings, but did not retain Dean Foods' liabilities. Dean Foods failed to make required payments to Montana producers for milk received in April 2020 on May 15, but ultimately paid the producers in June. Dean Foods failed to make payment to the Department of Livestock for amounts owed for March and April 2020 when due on April 25 and May 25, respectively. Failure of Dean Foods to pay its liability to the Pool Settlement Fund lowered minimum producer prices for May 2020 and the following months. Subsequently, the Bureau took legal action in fiscal year 2021 (August) to pursue payment for administrative expenses owed to the department by Dean Foods for March and April 2020. After opting-in to the Administrative Claims Consent Program, the bureau recovered 80% of amounts owed on August 31, 2020. After receiving payment from Dean Foods, the amount owed to the Producer Settlement Fund was allocated to the fund, positively impacting minimum producer prices for milk produced in August 2020 and following months.
- Since DFA's purchase of the Meadow Gold plants in Montana, the Bureau has been in contact with DFA representatives providing information about Montana's milk market regulation; learning about DFA's processes and reporting systems; and developing professional relationships.
- The Bureau worked on drafting a board guide as a resource for Board members and to provide a means of preserving and perpetuating institutional knowledge. Suggestions from legal counsel will be incorporated into the guide in fiscal year 2021.
- The Bureau prepared to be relocated to its old address at 1225 8th Avenue to make way for

the parking lot of the new Montana Historical Museum addition.

- In June 2020, the bureau provided information to the Legislative Audit Division (LAD), which was assessing whether to perform a performance audit on the Bureau and Board. Subsequently, in August, the department was informed that LAD decided to conduct the performance audit.

The majority of milk produced in Montana is utilized as fluid milk consumed in Montana. In fiscal year 2020, Montanans consumed an estimated 21.8 million gallons of fluid milk, 77% of which originated from Montana bottling plants using milk supplied by Montana dairy farmers. The next largest use of Montana-origin milk is ice cream type products, of which an estimated 5.5 million gallons was consumed in Montana, 20.7% of which was manufactured by Montana plants. Approximately 7.3% of Class II fluid cream products (half and half, cream, creamers, and aerosol whip) consumed in Montana originated from Montana plants. Montana plants account for only small percentages of all other dairy products consumed by Montanans.

The Bureau began preparing dairy consumption estimates beginning with fiscal year 2015. The estimated consumption of Class I fluid milk products in Montana since fiscal year 2015 is relatively flat (0.5% average annual increase). Fiscal year 2020 saw a 1.35% increase in the consumption of Class I milk products over fiscal year 2019. Nationally, since 2010, annual per capita fluid milk consumption experienced an annual decline of over 2% in all but two years. Montana's population growth rate of approximately 1% per year has offset some of the impact of declining per capital fluid milk consumption that likely is occurring in Montana. The percentage of Class I milk consumed in Montana that originated in Montana plants in fiscal year 2020 was 7.6% lower than fiscal year 2015; the percentage was 1.8% lower in fiscal year 2020 than in fiscal year 2019. USDA Economic Research Service data shows that, for the last decade, consumption of whole milk has trended higher and consumption of skim milk has trended lower. Information received by the Bureau from Montana plants reflects this trend. Montana consumption of fluid cream type products increased by almost 7% annually (on average) since fiscal year 2015. Estimates indicate that Montana consumption of ice cream type products decreased by nearly 1% in fiscal year 2020 following a nearly 7% annual increase (on average) between fiscal year 2015 and fiscal year 2019. Montana consumption of yogurt decreased by roughly 3% in fiscal years 2018, 2019, and 2020 after double digit increases in fiscal years 2016 and 2017. Butter consumption increased by over 8% annually (on average) in fiscal years 2018 - 2020. Tourism may impact some of Montana's dairy consumption trends for products such as butter, fluid cream, and ice cream that are often served by or used as ingredients by food service establishments. The relationships of Montana dairy consumption statistics and tourism in this report are most reflective of the 2019 tourism season. The major impact of the COVID-19 pandemic on Montana's tourism industry in 2020 is more likely to affect fiscal year 2021 dairy consumption because of seasonality. Negative impacts on dairy consumption by decreased tourism may be negated by changes in residential consumption patterns driven by stay-at-home orders, social distancing, and other societal influences.

The prices received for milk with 3.5% butterfat in fiscal year 2020 were mostly higher than the prior four years until the last quarter when the COVID-19 pandemic impacted the market and caused massive declines. In terms of longer-term price trends, the trend of increasing butterfat

prices appears to have paused or ceased early in fiscal year 2020. The trend of decreasing skim milk prices appears to have paused or ceased early in fiscal year 2019.

In fiscal year 2020, Montana dairies produced nearly 255 million pounds of milk, down approximately 5.6 million pounds from fiscal year 2019. Montana dairies produced 294 million pounds of milk in 2000. Montana milk production since 2000 has ranged from 255 million to 298 million pounds per year, averaging roughly 284.7 million pounds per year. Milk production has been relatively stable despite a significant decline in the number of dairies (from 144 licensed dairies in fiscal year 2000 to 53 licensed dairies in fiscal year 2020) and a decline in the size of the milking herd (from 13,216 cows in fiscal year 2000 to 9,818 cows in fiscal year 2020). The average number of cows being milked per dairy has increased from 92 cows per dairy in fiscal year 2000 to 185 cows per dairy in fiscal year 2020.

Montana exported 100.6 million pounds of Class I packaged fluid milk products *(compared to imports of 36.4 million milk-equivalent pounds of Class I packaged fluid milk products)* and exported 13.7 million pounds of bulk raw milk *(compared to imports of 28.7 million pounds of bulk raw milk)*. A provision in the Act (§ 81-23-302(10), MCA) specifies that distributors with processing facilities in the state shall *"whenever possible, purchase milk from Montana producers for the processing of products to be sold in this state if milk is available from Montana producers at the price set by the board."* The bulk milk imports are primarily attributed to Meadow Gold – Billings purchasing milk from Wyoming producers, processing the milk, and distributing it to the Wyoming market.

Montana's pool marketing system enables producers to receive uniform milk prices (for milk of equivalent butterfat content) based on the overall utilization of pool milk received by Montana's pool handlers. In fiscal year 2020, 51 pool dairies produced and delivered milk with an average butterfat content of 3.83% to three pool handlers and the Montana Correctional Enterprises dairy plant, receiving over $45.5 million at a weighted average price of $18.27 per hundredweight (cwt). Compared to fiscal year 2019, the weighted average price increased by nearly 8.9%; the 6.4% increase in gross annual receipts was less due to decreased production. While the weighted average price for pool milk was higher than the previous four years, it was still 8.3% lower than fiscal year 2015.

The value of pool milk is determined by production and utilization factors; factors related to the sale of surplus milk (milk in excess of pool handler's Montana Class I and Class II needs); and factors related to transportation charges absorbed by pool producers for shipments of unprocessed pool milk between pool plants.

Utilization Factors

Two major elements of utilization factors are (1) minimum prices for each class of milk and (2) the percentage of butterfat and skim milk (the portion of milk that is not butterfat) utilized in each class of milk. Minimum prices are highest for pool milk utilized as Class I milk consumed in Montana, which accounted for 55.2% of pool production in fiscal year 2020, increasing from 54.8% in fiscal year 2019 due to decreased pool production. The percentage of pool milk utilized as Class I milk consumed in Montana was 70.4% of pool production in 2000. The decline of Montana Class I utilization corresponds to the decrease in U.S. per capita consumption of fluid milk from 197 pounds per year in 2000 to 141

pounds per year in 2019. Other potential factors influencing this decline include increased availability and possibly market share of ultrapasteurized products (such as organic milk, lactose-free milk, and other specialty or branded products) that are imported into the state; loss of market share to a myriad of new beverage products, including plant-based milk substitutes; and changes in food distribution systems that have led to increased imports of fluid milk by out-of-state distributors supplying Montana stores. Because production has been relatively steady and Montana dairy processors do not utilize a large percentage of pool milk for production of Class II and Class III products, the decrease in the percentage of pool milk utilized as Class I milk that is consumed in Montana is being offset by exports of surplus milk.

Adjustments to Utilization Value

Adjustments were made to the utilization value of the milk for transportation charges to ship unprocessed pool milk between pool plants and for surplus milk sales that reduced the pool utilization value by over $3.0 million (6.24%), or in other terms, $1.22/cwt of production. In fiscal year 2020, $534,910 was deducted from the pool skim milk utilization value to transport approximately 27.5 million pounds of unprocessed pool milk between pool plants, primarily to transport unprocessed pool milk to the pool plant in Billings from the pool plant in Great Falls. Surplus milk is milk produced in Montana that is not consumed in Montana, excluding sales of cream to out-of-state markets, inventory, shrink, and dumped milk. Surplus sale factors allow for adjustments to the value of pool milk that reflect costs of marketing surplus milk. The majority of surplus milk is sold as Class I packaged milk to out-of-state markets. In fiscal year 2020, the overall adjustment for surplus sales (bulk and Class I packaged milk) totaled $2,497,384.

MILK MARKET ADMINISTRATION

MILK CONTROL ACT PRIMER

Policy Purpose

The Act provides for the regulation of the milk market in Montana. The Act establishes that regulation of milk is in the public interest because milk is a necessary food article; adequate supply is vital to the public; and health regulations do not provide for adequate supply. The Act specifies that it is a policy of the state to stabilize the marketing of milk and promote, foster, and encourage intelligent production and orderly marketing of milk dairy products; elimination of speculation and waste; and making the distribution between producer and consumer as direct as can be efficiently and economically done.

The Act's policy statement declaration in § 81-23-102, MCA, includes, but is not limited to, the following summarized statements. The policy declaration has not substantively changed since 1939.

- Trade practices in the dairy value chain can threaten the health and welfare of the state's citizens and undermine the sanitary condition and purity of milk.
- Past experience shows that when regulation does not provide for an orderly and profitable marketing of milk, credit status of producers and distributors is adversely affected, resulting in broader economic damage.
- The unique nature of milk lends itself to regulation. Milk is a highly perishable commodity that is easily contaminated. It cannot be stored for a great length of time and must be produced and distributed fresh daily.
- The supply of milk is variable but must be produced on a uniform and even basis and yet accommodate fluctuating demand; therefore, a surplus of milk must be available to guarantee adequate supply to the public. Maintaining this surplus can be expensive; unless regulated, the unavoidable surplus can undermine the milk industry by causing producers to relax their diligence in complying with health and sanitary provisions.
- The natural law of supply and demand has been found inadequate to protect the industry. In the past, the adequacy of supply has been threatened by market conditions and trade practices within the industry.
- The supply and quality of milk are affected negatively unless the producers are guaranteed and ensured a reasonable profit on milk.

Elements of the Milk Control Act

The Act describes its policy purpose and authorizes necessary regulatory infrastructure. The Act provides powers to the Board to supervise, regulate, and control the milk industry. The Act requires the Montana Department of Livestock to provide staff to the Board to assist in investigating matters; bring proceedings to enforce orders of the Board; and assist in technical, enforcement, and regulatory activities.

The Act includes a number of specific provisions. Among these are the following:

- mandatory licensing of businesses that produce or distribute milk in Montana;
- assessments to fund the administration and enforcement of the Act;
- establishment of minimum prices to be paid for raw milk according to how the milk is utilized, referencing federal milk classifications;
- authorization for a quota plan and a statewide pooling arrangement;
- governance of fair trade practices, setting forth four specific trade practice prohibitions against secret rebates and discounts; gifts to secure fluid milk and cream business; offering special prices to customers not available to all customers who purchase under like terms/conditions; and payment (by a distributor to a producer) of a price lower than applicable producer price;
- expression of legislative intent that milk produced outside of the state is subject to the Act the instant that the milk is subject to regulation by the state; and
- statement that the Act does not supersede or interfere with federal law regulating interstate commerce.

BOARD OF MILK CONTROL – ACTIVITY IN FISCAL YEAR 2020

In fiscal year 2020, the Board held three meetings (December 13, 2019; April 9, 2020; and May 13, 2020).

December 13, 2019 Meeting The Board met on December 13, 2019 to consider milk control assessment rates for fiscal year 2021; respond to a September 19, 2019 memorandum from the Board of Livestock; consider the Bureau's recommendation to amend administrative rules to eliminate the Producer Committee; discuss the impact of the November 2019 Dean Foods Chapter 11 bankruptcy filing on the Board, Bureau, and Montana producers; and discuss the formation of an informal ad hoc committee of producers to work through milk market regulation policy issues and provide recommendations to the Board. The Board approved a proposal to amend ARM 32.24.450 to decrease milk control assessment rates applicable to fiscal year 2021 by 8.3% relative to fiscal year 2020. Subsequently, the rule proposal was adopted following the public comment period. In response to the memorandum from the Board of Livestock, the Board authorized the Board Chair, on an ongoing basis, to approve out-of-state travel requests by Department of Livestock employees representing the Board; such approval is subject to final approval by the Board of Livestock. Considering industry input, which was split over the issue, the Board took no action on the Bureau's recommendation to amend administrative rules to eliminate the Producer Committee. The discussion of the November 2019 Dean Foods Chapter 11 bankruptcy filing focused on the bankruptcy process and the impact on the Board, Bureau, and Montana pool producers. At the time of the meeting, Dean Foods was current in its payment to producers and payments to the Department of Livestock (Pool Settlement Fund, milk control assessments, milk inspection assessments); and the Bureau anticipated payment of its post-petition claims (liabilities accruing after the bankruptcy filing). The Board discussed and encouraged the concept of the formation of an informal voluntary ad hoc committee of leaders of producers delivering milk to Meadow Gold

and Darigold which would periodically meet to discuss matters pertaining to Montana's milk market regulation. The future of the concept was left for industry to act upon. Future Board meetings may include an unfinished business agenda item in which the ad hoc committee will report to the Board about any committee meetings (ideas discussed, agreements, disagreements, and requests of assistance from the Board).

April 9, 2020 Meeting The Board met via Zoom on April 9, 2020 to consider temporary emergency rulemaking enabling surplus sale adjustments for milk dumping attributed to the COVID-19 crisis. Approximately one week before the meeting, it became evident to Montana fluid milk plants that they were experiencing a sudden and substantial decrease in demand for milk in response to a major drop in consumer purchasing and closure of restaurants and institutional food services and would not be able to market potentially large volumes of surplus milk at cost (as much as 1.5 million gallons over a three month period). The drop in demand had been preceded by panic buying and store shortages. Fluid milk plants communicated their intention to reduce receipts of milk, forcing individual dairy farms to dump milk and experience significant economic harm. Following industry testimony that was representative of all directly affected parties, the Board adopted an emergency rule that temporarily modified the definition of "dumped milk" and "surplus" to allow milk dumped because of COVID-19 market conditions to be treated as if it had been received and utilized for a sale of bulk surplus milk with $0.00 proceeds received and added provisions to ARM 32.24.523 that required pool handlers and pool producers to remit any government payments received as compensation for COVID-19-related dumped milk to the Pool Settlement Fund. The rule became effective on April 9, 2020. The rule was adopted to enable the economic impact of dumping to be spread amongst all producers that are part of Montana's statewide pooling arrangement instead of being borne by individual producers. Uniform payment is an objective of Montana's milk market regulation that would not have been achieved under the pandemic-caused circumstances. The rule was also adopted so that Montana's dairy industry could sustain a critical mass of milk production to be viable in the future.

Subsequently, the temporary emergency rule lapsed on August 7, 2020 after being in effect for 120 days. The emergency rule was only used in April, when 106,146 lbs (approximately 12,350 gallons) of milk was dumped that was subject to the rule (0.5% of April 2020 Montana pool production).

May 13, 2020 Meeting The Board met via Zoom on May 13, 2020 to (A) discuss milk donation in general and the specific donation (12,000 gallons of white milk containing 2% butterfat) that members of the Montana Milk Producers Association (MMPA) made in April 2020 to the Montana Food Bank Network and (B) discuss rulemaking for dumped milk. All Board members praised MMPA for its members' generosity in a time of need. In the meeting, the Board considered correspondence directed to and from the Bureau pertaining to the MMPA donation; information provided by the Bureau; and public testimony. The bureau chief explained that the donations had been accounted for as Class I milk, consistent with the directives of the administrative rules. The donors were concerned about the appropriateness of classifying the donated milk as Class I milk. Industry testimony informed the Board that on an ongoing basis

the Darigold – Bozeman plant included donated milk in its reported Class I utilization and that in federal order markets a donation of fluid milk is a Class I utilization. Krista Lee Evans, representing MMPA, committed to working with the MMPA board and consulting with other Montana dairy producers to develop rule recommendations pertaining to donations to bring to the board. The Board determined that the bureau had properly accounted for the milk donations and that there was no need to take action. The Board also discussed the temporary emergency rule adopted on April 9, 2020 pertaining to dumped milk and received comment from industry that rulemaking to permanently allow for similar treatment of dumped milk should not be pursued. The Board took no action regarding rulemaking for dumped milk.

The following table shows information about the Board members and their terms of appointment. Mr. Mitchell and Mr. Weissman continue to serve on the Board until they are reappointed or replaced by new appointments. Appendix A provides additional information about the Board, its interaction with the Montana Department of Livestock, and differentiation of the roles of the department's Milk Control Bureau and the Milk & Egg Bureau.

Montana Board of Milk Control - Members

Name	Board Position	Residence	Term
W. Scott Mitchell	Chair	Billings	1/2015 – 1/2019
Jerrold A. Weissman	Vice-Chair	Great Falls	1/2015 – 1/2019
Brian C. Beerman	Member	Fairfield	1/2017 – 1/2021
Jim Parker	Member	Fairfield	1/2017 – 1/2021
Erik Somerfeld	Member	Power	1/2017 – 1/2021

The Board of Milk Control can be reached through the contact information listed below.

Milk Control Bureau
P.O. Box 202003
Helena, MT 59620-2003
(406) 444-2875 or LivMilkControl@mt.gov

PRODUCER COMMITTEE – ACTIVITY IN FISCAL YEAR 2020

The Producer Committee is provided for by ARM 32.24.506. The Committee reviews and approves transfers of quota and is authorized by rule to take over the responsibility from pool handlers of selling surplus milk that is sold unprocessed in bulk. Pool handlers may also relinquish the responsibility to market bulk surplus milk to the Committee.

In fiscal year 2020, the Producer Committee met four times (August 30, 2019; March 3, 2020; March 31, 2020; and June 25, 2020) to consider and approve six quota transfer requests, discuss dairy closures and industry developments, and receive updates from the Bureau. All meetings were held via conference call.

The following table shows the Committee's membership in fiscal year 2020. Bureau analysis of pool plants' June 2019 receipts conclude no change in producer representation was required to comply with ARM 32.24.506(b)(i). The Board did not make appointments at its meetings in fiscal year 2020. Because the issue is not addressed in rule and is not controlled by statute, the Board has discretion in how it interprets and applies its rules. One possible interpretation is that the members' terms automatically renew if the Board takes no action. Another possible interpretation is that members' terms automatically expire at the end of the term unless the Board takes action. The Bureau contacted Board Chair Mitchell and discussed the situation and information provided by legal counsel. Mr. Mitchell instructed the Bureau that that the committee should operate based on the first interpretation (automatic renewal) and that the Board would discuss the issue at a future meeting. At the beginning of fiscal year 2021, there was one vacancy for a committee position to be filled by a producer delivering milk to Darigold – Bozeman.

Producer Committee Members 2018 – 2019 Term:

Producer Name	Committee Position	Pool Plant Receiving Milk	Dairy Name
David Miller	Chair	Darigold - Bozeman	Montana Correctional Enterprises Dairy
Sam Hofer	Vice-Chair	Meadow Gold – Great Falls	Surprise Creek Colony Dairy
Dan Daugherty	Member (serving as At-Large Committee Member)	Darigold - Bozeman	Triple D Dairy
Tim Huls*	Member	Darigold – Bozeman	Huls Dairy
Nelson Kamerman	Member	Darigold - Bozeman	Dairyland Farms
Mark Kleinsasser	Member	Meadow Gold – Billings	Mountain View Colony Dairy
John Waldner	Member	Meadow Gold – Great Falls	Fairhaven Colony Dairy

* The committee position held by Tim Huls became vacant on July 1, 2020.

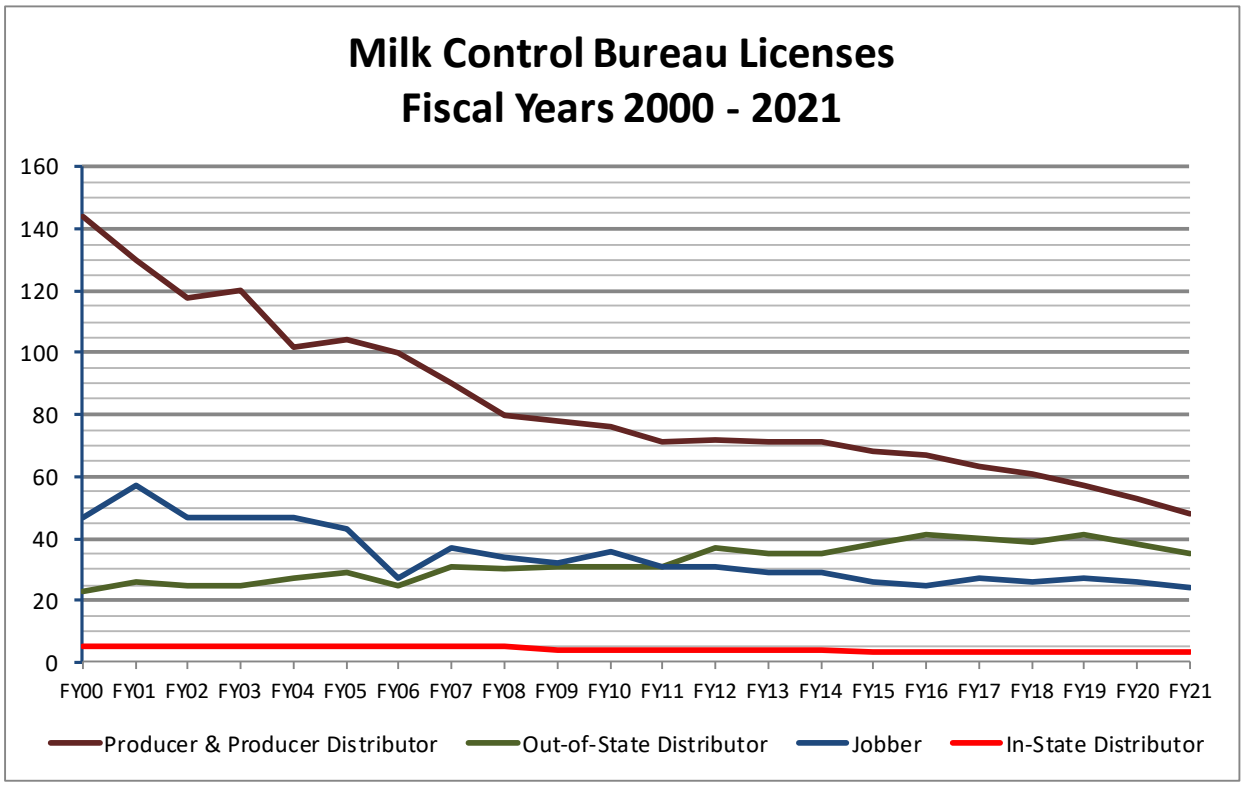
LICENSING SUMMARY

The Bureau issues licenses to producers, producer-distributors, distributors, and jobbers (a class of distributors that purchase and resell milk). The following table shows the number of licenses issued in fiscal year 2020 for each type of business. Licenses are issued on an annual fiscal year basis (July 1 – June 30). By statute, the license fee is two dollars per license, and the fees are deposited into the state general fund.

Licenses Issued for Fiscal Year 2020

License Type	Number of Licenses
Producer	50
Producer-Distributor	3
In-State Distributor	3
Out-of-State Distributor	38
Jobber	26

The following chart shows the number of licenses issued for each license type for fiscal year 2000 through fiscal year 2021, combining the number of producers and producer-distributors. The chart reflects consolidation affecting the milk industry. Starting in fiscal year 2015, Montana Correctional Enterprises was licensed as a producer-distributor instead of an in-state distributor. Had the business been licensed as a producer-distributor in prior years, the number of in-state distributor licenses would have been reduced by one. A change of significance in the number of in-state distributors occurred after fiscal year 2008, when Meadow Gold did not renew its in-state distributor license for its Kalispell facility.



ADMINISTRATIVE ASSESSMENTS AND COLLECTION

Administrative assessments are levied on sales of milk by Montana producers, producer-distributors, in-state distributors, and out-of-state distributors to secure funds to administer and enforce the Act. The assessments are classified as special revenue and are the sole source of funding for the Board and Bureau.

As required by statute, the Board considered the fiscal year 2021 assessment rates (at its December 13, 2019 meeting) and took action to reduce assessment rates for fiscal year 2021. At the time of the meeting, the Bureau projected that the program's cash balance would decrease by approximately $53,000 during fiscal year 2021 but that sufficient funds would be available to administer the Act.

Assessment Rates by License Type for Fiscal Year 2020 & Fiscal Year 2021

License Type	FY2020 Assessment Rates	FY2021 Assessment Rates
Producer	$0.030/cwt	$0.0275/cwt
Distributor	$0.030/cwt	$0.0275/cwt
Producer-Distributor	$0.060/cwt	$0.0550/cwt

SELECTED MILK CONTROL BUREAU HIGHLIGHTS

- Despite staff not working in the same physical office since March to address COVID-19 concerns, the Bureau completed its regular processes within normal time frames. The design of the Bureau's systems allow staff to complete most processes using electronic files. The department's IT infrastructure enabled remote access and collaboration. Overall, the COVID-19 pandemic increased the bureau's workload due to additional efforts necessitated by emergency rulemaking and circumstances surrounding an unprecedented producer donation of milk.
- The Bureau implemented several process improvements for its audit function. Since the audit of October 2019 distributor reports and pooling calculations, the bureau completed (or mostly completed) audits prior to receiving the next month's distributor reports. Process improvements allowed for a smooth transition following the retirement of the Bureau's auditor, Linda Grady. Prior to statewide shelter-in-place orders, the Bureau created a paperless audit process which was successfully implemented beginning with the audit of the March 2020 distributor reports and pooling calculations. The paperless audit process improved the Bureau staff's ability to conduct audits collaboratively and uniformly.
- Beginning in December 2019, the department implemented a paperless deposit process that has noticeably reduced time spent depositing assessments and license fees.
- On November 12, 2019, Dean Foods (Southern Foods Group, LLC) filed for Chapter 11 Bankruptcy protection. Following the bankruptcy filing, payments to the Department of Livestock pertaining to October 2019 were initially delayed (Pool Settlement Fund, milk control assessments, and milk inspection assessments) but were paid in December following bankruptcy court orders. On May 1, 2020, Dairy Farmers of America (DFA) took ownership of most of Dean Foods' assets, including the Meadow Gold plants in

Great Falls and Billings, but did not retain Dean Food's liabilities. Dean Foods failed to make required payments to Montana producers for milk received in April 2020 on May 15, but ultimately paid the producers in June. Dean Foods failed to make payments when due to the Department of Livestock for amounts owed for March and April 2020. Failure of Dean Foods to make timely payment for its liability to the Pool Settlement Fund lowered minimum producer prices for May 2020 and the following months. The bureau sent written notice of the liabilities to the Dean Foods Estate in May and June, but no payments resulted from the communications. Subsequently, in August 2020, outside legal counsel representing the Bureau filed administrative expense claims in the United States Bankruptcy Court for the Southern District of Texas Houston Division. Administrative claims are claims for debts accruing after the bankruptcy petition filing date and have priority over claims that existed prior to the bankruptcy filing date. Outside legal counsel informed the Bureau that the Dean Foods bankruptcy estate was administratively insolvent, which means that the proceeds of the business operations would be insufficient to pay off debts that accrued after the bankruptcy filing. At the time, 480 of 491 claims filed after the release of the administrative claims protocol filed to opt-in to the Administrative Claims Consent Program. An election to opt-in to the Administrative Claims Consent Program provided prompt payment (not subject to disgorgement) in the amount of 80% of reconciled administrative claims in full satisfaction of the claim. Not opting-in to the Administrative Claims Consent Program would delay payment until after each holder of an Opt-in Settled Administrative Claim received payment for the settled payment amount, after which payment would be made in accordance with the terms of a Chapter 11 plan. If the Bureau did not opt-in, payment would be delayed, payment might not be in full (or any amount); and additional legal costs would accrue. Considering this information and an impending deadline, the Board Chair and the Executive Officer of the Department of Livestock authorized the Bureau to opt-in to the Administrative Claims Consent Program on August 20, 2020. Outside legal counsel filed the opt-in election on August 24, 2020. The Bureau's claim was listed in the fourth notice of allowed administrative expense claims filed with the bankruptcy court on August 25, 2020. On August 31, 2020, the Bureau received payment in the amount of 80% of reconciled administrative claims, per the agreement. The amount owed to the Producer Settlement Fund was allocated to the fund, positively impacting the minimum producer prices for milk produced in August 2020 and following months.

- Since DFA's purchase of the Meadow Gold plants in Montana, the Bureau has been in contact with DFA representatives providing information about Montana's milk market regulation; learning about DFA's processes and reporting systems; and developing professional relationships.
- The Bureau worked on drafting a board guide as a resource for Board members and to provide a means of preserving and perpetuating institutional knowledge. Suggestions from legal counsel will be incorporated into the guide in fiscal year 2021.
- In January 2020, the Bureau learned it would be required to move in 2020 from its 1404 8th Ave. location to make room for the parking lot of the new Montana Historical Museum addition. In June 2020, the Bureau learned it needed to relocate to its old

address at 1225 8th Ave. by August 1st. Subsequently, the move was completed on July 21, 2020.

- The Bureau updated position descriptions for its staff.
- Bureau staff documented audit processes to capture institutional knowledge and facilitate successful transitions in the future. Bureau staff made progress in documenting operational processes carried out by the dairy accountant.
- The Bureau explored developing a milk price to feed cost margin statistic for the Montana pool, but did not complete development of the statistic because of limited interest and anticipation that ongoing investment in staff time to collect feed price data might exceed the benefits of the statistic.
- In June 2020, the bureau provided information to the Legislative Audit Division (LAD), which was assessing whether to perform a performance audit on the Bureau and Board. Subsequently, in August, the department was informed that LAD decided to conduct the performance audit.

ESTIMATE OF MONTANA DAIRY CONSUMPTION

DISCUSSION OF ESTIMATE METHOD & LIMITATIONS

The estimated dairy consumption in Montana is based on combining information from assessments reports submitted by pool handlers, producer-distributors, and out-of-state distributors. The forms submitted by distributors gather different levels of information depending on the type of distributor. Information from pool handlers and producer-distributors focuses on the weight of milk utilized. Information gathered from import reports from in-state and out-of-state distributors focuses on product volume or weight to which milk equivalent factors are applied to determine milk equivalent weight subject to administrative assessments. Because different sources of information are being combined, the information should be viewed as being an estimate. Additionally, because the milk equivalent factors used by the Bureau changed in fiscal year 2019 relative to prior years, the estimate of Montana's estimated dairy consumption by milk equivalent weight is not comparable to years prior to fiscal year 2019 for several products.

Pool handlers (Meadow Gold and Darigold) and Montana Correctional Enterprises report how milk received is utilized in monthly reports submitted for pooling calculations. Pool handlers sell some bulk milk to other dairy manufacturers located in Montana. The utilization of this milk is attributed to the class of utilization thought to account for these manufacturers' utilization.

Producer-distributors report total milk produced and sold in reports submitted with payment of administrative assessments and report how the milk was utilized. In estimating dairy product consumption, product weights are estimated through calculations that use product density and milk equivalent factors.

All distributors report imports of dairy products.

The following tables show estimates of dairy consumption in Montana in terms of product consumed (gallons or pounds of product) and in terms of milk equivalent (weight of milk utilized to manufacture the products consumed, determined on a total milk solids basis). The milk equivalent weight of imported dairy products is calculated by multiplying the units of product imported by the milk equivalent factors shown in the table labeled "Dairy Product Milk Equivalent Factors Used by the Milk Control Bureau."

The Bureau identified an error in its methodology for estimating Class I fluid milk consumption when it prepared the fiscal year 2020 report. The error resulted in prior reports under-estimating fluid milk consumption in Montana and the portion of that consumption sourced from Montana processing plants and dairies by roughly 500,000 gallons per year (roughly 2% of total consumption). The charts on pages 20 and 21 reflect the corrected data.

FISCAL YEAR 2020: MONTANA ESTIMATED DAIRY CONSUMPTION (BY PRODUCT VOLUME OR WEIGHT)

Class / Type / Product	Products from Montana Plants	% of Product Total from Montana	Products from Out-of-State Plants	% of Product Total from Out-of-State	Total Consumption Estimate
CLASS I (gallons)					
White & Flavored Milk, Buttermilk, Eggnog	16,809,843	76.99%	5,023,540	23.01%	21,833,384
CLASS II					
Fluid/Whip (gallons)					
Half and Half	71,765	6.66%	1,005,832	93.34%	1,077,597
Whipping Cream	113,477	14.02%	695,651	85.98%	809,128
Creamers			524,259	100.00%	524,259
Aerosol Whip			119,281	100.00%	119,281
Uncultured (gallons)					
Ice Cream / Mix / Ice Milk / Novelties	1,129,664	21.17%	4,205,913	78.83%	5,335,577
Frozen Yogurt / Mix			126,406	100.00%	126,406
Cream for Candy Products	12,991	100.00%			12,991
Cultured (pounds)					
Cottage Cheese	143,078	3.43%	4,028,255	96.57%	4,171,332
Sour Cream & Dressings			5,898,548	100.00%	5,898,548
Yogurt / Kefir	513,434	3.14%	15,826,983	96.86%	16,340,417
CLASS III (pounds)					
Cream Cheese			2,187,818	100.00%	2,187,818
Cheese	68,000	0.24%	28,545,625	99.76%	28,613,624
Butter	13,786	0.14%	9,584,520	99.86%	9,598,306

DAIRY PRODUCT MILK EQUIVALENT FACTORS USED BY THE MILK CONTROL BUREAU

Product	Milk Equivalent *(lbs per 1 lb of product)*	Milk Equivalent *(lbs per 1 gallon of product)*
White Milk		6.07 – 7.94
Flavored Milk		6.18 – 8.13
Buttermilk		6.87
Eggnog		9.82
Half and Half (10.5% - 18% milkfat)		12.53
Creamers		12.53
Light Cream (18% - 30% milkfat)		17.60
Light Whipping Cream (30 – 36% milkfat)		25.50
Heavy Whipping Cream (>36% milkfat)		29.41
Aerosol Whip		17.44
Ice Cream		7.23
Ice Milk / Sherbet		0.96
Frozen Yogurt		5.40
Frozen Dairy Novelties		6.05
Ice Cream Mix		14.75
Shake Mix / Yogurt Mix		11.80
Cottage Cheese	1.61	
Cottage Cheese (low fat or no fat)	1.41	
Dry Curd Cottage Cheese	1.61	
Sour Cream (and similar dips and dressings)	1.91	
Non-fat Sour Cream	0.51	
Yogurt / Kefir	0.92	
Butter	6.51	
Cream Cheese	3.61	
Hard Cheese	4.90	

Raw milk is composed of approximately 87.55% water and 12.45% milk solids by weight (3.68% butterfat + 8.77% milk solids not fat). Milk solids not fat includes protein, lactose, and minerals. The amount of butterfat and milk solids not fat used to manufacture different products varies. Lowfat dairy products have less milk solids content than comparable full-fat dairy products. Butter has a high amount of milk solids per pound of product because 81% of its weight is milk solids, nearly all of which is butterfat.

FISCAL YEAR 2020: MONTANA ESTIMATED DAIRY CONSUMPTION – BY MILK EQUIVALENT WEIGHT

Class / Type / Product	Products from Montana Plants *(lbs milk equivalent)*	Products from Out-of-State Plants *(lbs milk equivalent)*	Total Consumption Estimate *(lbs milk equivalent)*
CLASS I			
White & Flavored Milk, Buttermilk, Eggnog	144,900,849	36,432,113	181,332,962
TOTAL CLASS I	**144,900,849**	**36,432,113**	**181,332,962**
CLASS II			
Fluid/Whip			
Half and Half	613,590	12,799,889	13,413,479
Whipping Cream	949,801	19,802,618	20,752,419
Creamers		6,568,961	6,568,961
Aerosol Whip		2,080,264	2,080,264
Subtotal	**1,563,391**	**41,251,732**	**42,815,123**
Uncultured			
Ice Cream / Mix / Ice Milk / Novelties	8,167,471	37,169,230	45,336,701
Frozen Yogurt / Mix		1,369,692	1,369,692
Candy Products	108,734		108,734
Subtotal	**8,276,205**	**38,538,922**	**46,815,127**
Cultured			
Cottage Cheese	230,355	6,251,925	6,482,280
Sour Cream & Dressings		10,354,894	10,354,894
Yogurt / Kefir	472,359	14,560,824	15,033,183
Subtotal	**702,714**	**31,167,644**	**31,870,358**
TOTAL CLASS II	**10,542,310**	**110,958,298**	**121,500,608**
CLASS III			
Cream Cheese		7,898,022	7,898,022
Cheese	678,373	139,873,562	140,551,935
Butter	30,787	62,395,222	62,426,009
TOTAL CLASS III	**709,160**	**210,166,806**	**210,875,966**

SUMMARY

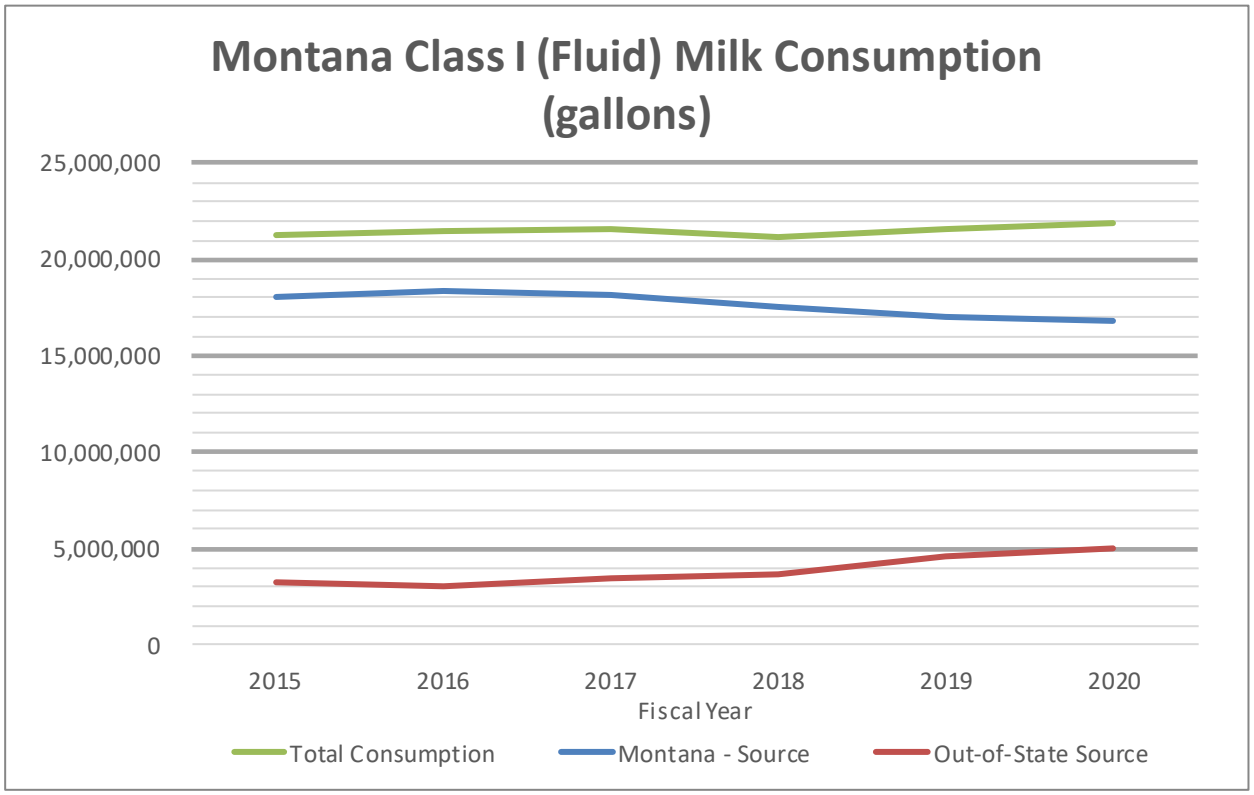
The majority of milk produced in Montana is utilized for fluid milk consumed in Montana. In fiscal year 2020, an estimated 21.8 million gallons of fluid milk was consumed in Montana, 77% of which originated from Montana bottling plants using milk supplied by Montana dairy farmers. The next largest use of Montana-origin milk is for ice cream type products (ice cream, ice milk, and frozen yogurt). An estimated 5.5 million gallons of ice cream type products were consumed in Montana, 20.7% of which was manufactured by Montana plants. Approximately 7.3% of Class II fluid cream products (half and half, cream, creamers, and aerosol whip) that were consumed in Montana originated from Montana plants. Montana plants account for only small percentages of all other dairy products consumed by Montanans. Production of these products outside of Montana is largely a function of industry dynamics that relate to scales of efficiency in manufacturing and placement of manufacturing facilities near areas with greater population or areas with larger supplies of milk.

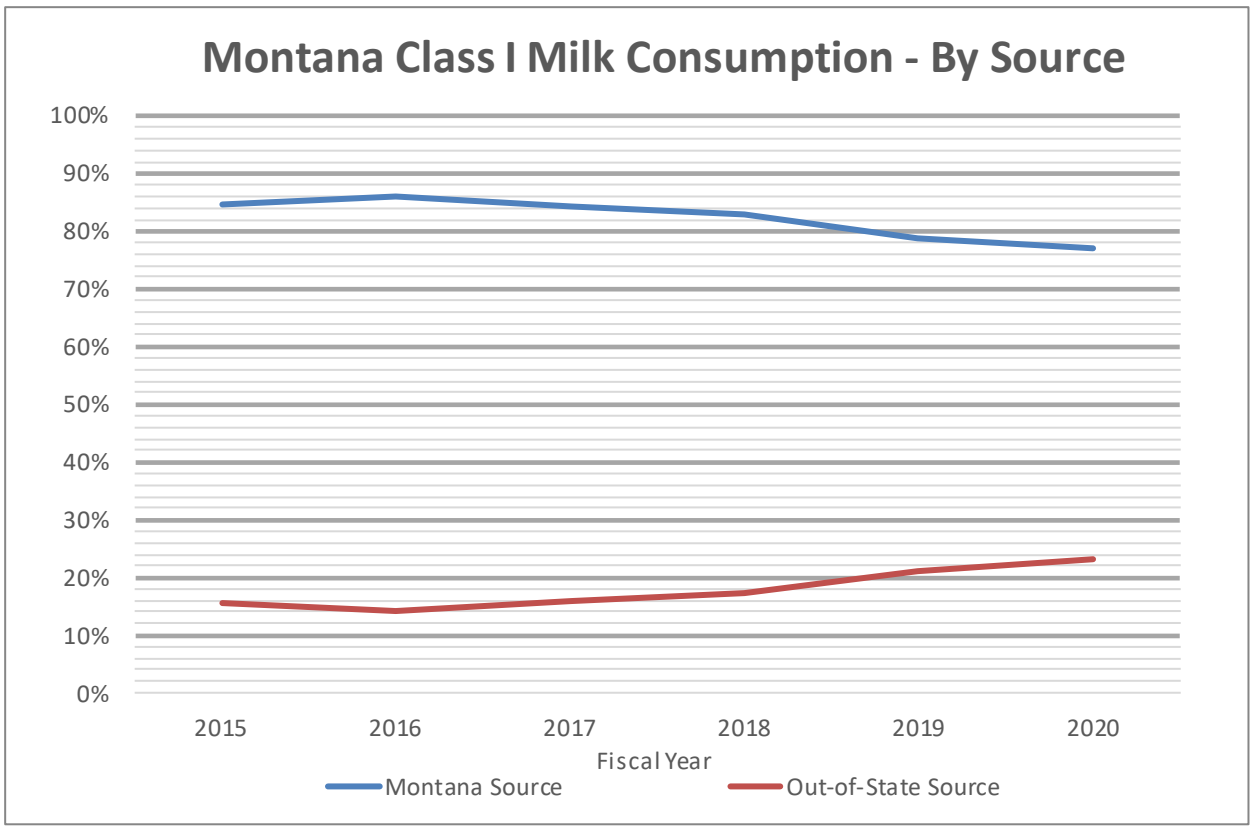
The Bureau began preparing dairy consumption estimates beginning with fiscal year 2015. The following describes some observed trends.

- **Class I Fluid Products** The estimated consumption of Class I fluid milk products in Montana since fiscal year 2015 is relatively flat (0.5% average annual increase). Fiscal year 2020 saw a 1.35% increase in the consumption of Class I milk products over fiscal year 2019. Nationally, since 2010, annual per capita fluid milk consumption experienced an annual decline of over 2% in all but two years. The percentage of Class I milk consumed in Montana that originated in Montana plants was 77% for fiscal year 2020, down 1.8% from fiscal year 2019 and 7.6% lower than fiscal year 2015. USDA Economic Research Service data shows that, for the last decade, consumption of whole milk has trended higher and consumption of skim milk has trended lower. The Bureau has observed a trend of increased overall butterfat content in milk bottled by Montana plants.
- **Fluid Cream Type Products** Estimates indicate that consumption of fluid cream type products increased by almost 7% annually (on average) since fiscal year 2015.
- **Ice Cream Type Products** Estimates indicate that consumption of ice cream type products decreased by 0.8% in fiscal year 2020 following nearly 7% annual increases (on average) between fiscal year 2015 and fiscal year 2019. *(The authors note that estimating consumption of ice cream type products is more difficult and not as straight forward as estimating fluid milk consumption.)*
- **Yogurt** Estimates indicate yogurt consumption decreased by roughly 3% in fiscal years 2018, 2019, and 2020 after double digit increases in fiscal years 2016 and 2017.
- **Butter** The estimated butter consumption increased over 8% annually (on average) in fiscal years 2018 - 2020.

The U.S. Census Bureau estimates that Montana's population in 2019 was nearly 1.07 million. According to worldpopulationreview.com (accessed on August 28, 2020), Montana experienced modest population growth of approximately 1% per year from 2010 to 2020. Tourism may impact some of Montana's dairy consumption trends for products such as butter, fluid cream, and ice cream that food service establishments serve or use as ingredients. The University of

Montana Institute for Tourism & Recreation Research estimated that there were 12.64 million nonresident visits in 2019, roughly 7.8% more than in 2015. The average duration of a visit in 2019 was 4.3 nights according to the University of Montana Institute for Tourism & Recreation Research's *2019 Nonresident Visitation, Expenditures & Economic Impact Estimates* report for Montana. The relationship of Montana dairy consumption statistics and tourism in this report is most reflective of the 2019 tourism season. The major impact of the COVID-19 pandemic on Montana's tourism industry in 2020 is more likely to affect fiscal year 2021 dairy consumption because of seasonality. Negative impacts on dairy consumption by decreased tourism may be negated by changes in residential consumption patterns driven by stay-at-home orders, social distancing, and other societal influences.




Montana Class I Milk Consumption - By Source
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2015
2016
2017
2018
2019
2020
Fiscal Year
Montana Source
Out-of-State Source

MINIMUM PRODUCER PRICES

CLASSIFIED PRICING

To aid in the orderly marketing of milk, many jurisdictions in the United States, starting in the 1930s, established price regulation systems that set prices for milk purchased from dairies based upon how the buyer (a processor) utilizes the milk. Currently in the United States, over 85% of all milk sold by dairy farms is subject to federal or state price regulation that uses classified pricing. Classified pricing systems have been adopted in a number of other western countries as well. Such systems help prevent situations in which producers are pitted against each other by processors to undercut prices, which can lead to a chaotic marketplace in which the supply and sanitary condition of milk becomes imperiled. Montana's milk classification system is similar to federal (USDA) milk classification. Class I utilization includes fluid milk products, including buttermilk and eggnog. Class II utilization includes fluid cream products, ice cream type products, cottage cheese, sour cream, and yogurt. Class III utilization includes cheese and cream cheese. Class IV utilization includes butter and dried milk. Montana law allows the Board of Milk Control to combine milk classes, and Montana Class III utilization combines the federal Class III and Class IV utilizations. In Montana, Class III utilization also includes bulk milk inventory, dumped milk, and up to 2% shrinkage, with any shrinkage in excess of 2% of pool receipts being allocated to Class I utilization. Shrinkage is a term that describes milk received that is not accounted for by utilization or inventory. Shrink is unavoidable and typically is caused by processing losses and incidental waste.

PRICE FORMULAS

The Milk Control Act requires that the Board of Milk Control establish formulas to calculate minimum prices to be paid for milk based upon classified utilization.

Montana Class I

Montana's Class I milk price formula adds a $2.55/cwt differential to the USDA Federal Order Base Class I price published in the USDA Agricultural Marketing Service's Announcement of Advanced Prices and Pricing Factors. The Montana Class I butterfat price is the Federal Order Advanced Butterfat Pricing Factor (from the same USDA price announcement) plus $0.0255/lb. The USDA Federal Milk Marketing Administration announces these prices in advance of the month of production. The federal announcement is generally made on the Wednesday following the first two full weeks of the month. The following table illustrates the application of the Montana Class I price formulas for July 2019.

Montana Class I Price Computations per ARM 32.24.480(2) for July 2019	
Federal Order Base Class I Price for Milk Testing 3.5% Butterfat ($/cwt)	$17.18
Plus: Montana Differential ($/cwt)	$2.55
Montana Class I Milk Price for Milk Testing 3.5% Butterfat ($/cwt)	**$19.73**
Federal Order Advanced Butterfat Pricing Factor ($/lb)	$2.6529
Plus: Montana Differential ($/lb)	$0.0255
Montana Class I Butterfat Price ($/lb)	**$2.6784**
Value of Montana Class I Butterfat at 3.5 lbs	$9.37440
Value of Montana Class I Skim Milk at 96.5 lbs	$10.35560
Montana Class I Milk Price for Milk Testing 3.5% Butterfat ($/cwt)	**$19.73000**

Montana Class II & Class III

The Montana Class II and Class III price formulas reference the prices listed below that are published in the USDA Agricultural Marketing Service's Announcement of Advanced Prices and Pricing Factors.

- Class II Skim Milk Price (converted to dollars per pound of skim milk)
- Advanced Class III Skim Milk Pricing Factor (converted to dollars per pound of skim milk)
- Advanced Class IV Skim Milk Pricing Factor (converted to dollars per pound of skim milk)
- Advanced Butterfat Pricing Factor

These prices are determined by USDA using federally established formulas that rely upon USDA-calculated weighted average prices of butter, nonfat dry milk, cheese, and whey for the first full two weeks of the month prior to the month to which the price announcement applies. Prices and sales volumes of these products are mandatorily reported to USDA by the United States dairy industry.

The Montana Class III Butterfat Price formula subtracts the Montana Class III Butterfat Price Differential from the Advanced Butterfat Pricing Factor. The following tables illustrate the application of the Montana Class II and Class III price formulas for July 2019.

Montana Class II Price Computations per ARM 32.24.480(3) for July 2019	
Advanced Butterfat Pricing Factor ($/lb)	$2.6529
Plus: $0.007/lb ($/lb)	$0.0070
Montana Class II Butterfat Price ($/lb)	**$2.6599**
Montana Class II Skim Milk Price ($/lb): *federal Class II Skim Milk Price converted to units of dollars per pound of skim milk*	**$0.0848**
Value of Montana Class II Butterfat at 3.5 lbs	$9.30965
Value of Montana Class II Skim Milk at 96.5 lbs	$8.18320
Montana Class II Milk Price for Milk Testing 3.5% Butterfat ($/cwt)	**$17.49285**

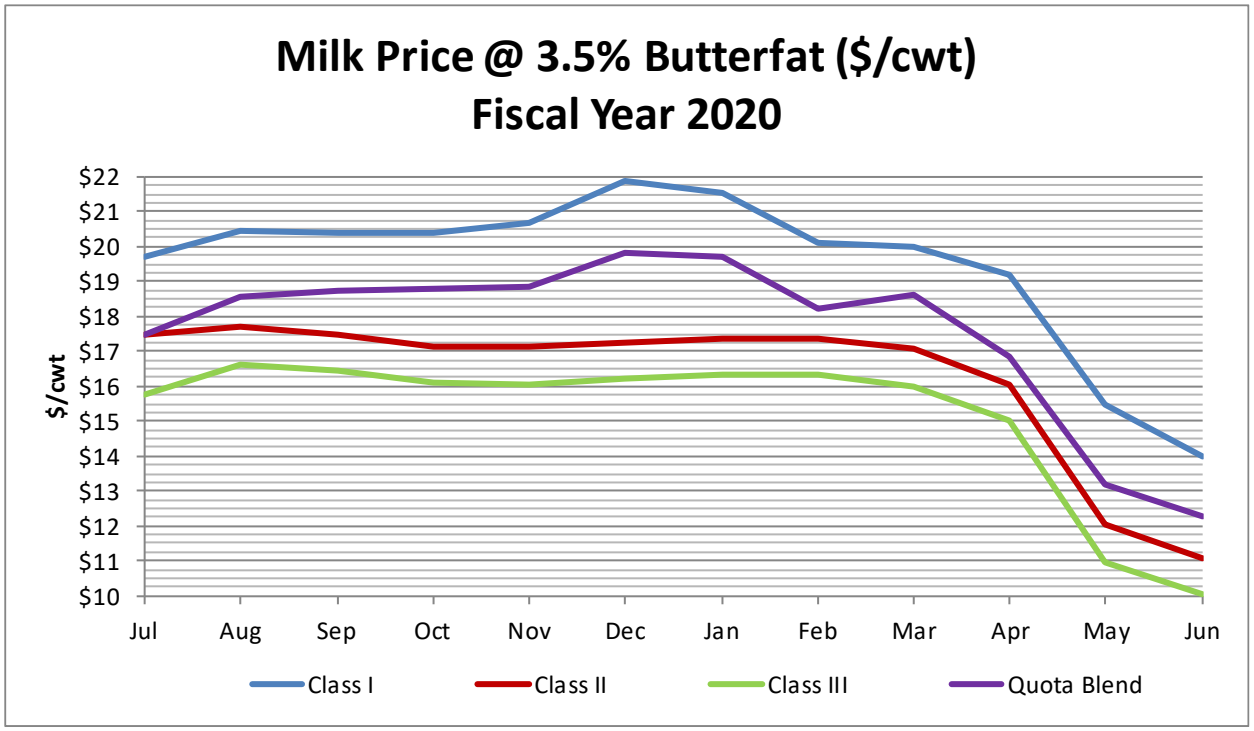
Montana Class III Price Computations per ARM 32.24.480(4) for July 2019	
Advanced Butterfat Pricing Factor ($/lb)	$2.6529
Less: Montana Class III Butterfat Price Differential ($/lb)	($0.1000)
Montana Class III Butterfat Price ($/lb)	**$2.5529**
Federal Class III Skim Milk Pricing Factor ($/cwt)	$7.09
Federal Class IV Skim Milk Pricing Factor ($/cwt)	$7.78
Montana Class III Skim Milk Price ($/lb): *lower of Class III or Class IV Skim Milk Pricing Factor, converted to units of dollars per pound of skim milk*	**$0.0709**
Value of Montana Class III Butterfat at 3.5 lbs	$8.93515
Value of Montana Class III Skim Milk at 96.5 lbs	$6.84185
Montana Class III Milk Price for Milk Testing 3.5% Butterfat ($/cwt)	**$15.77700**

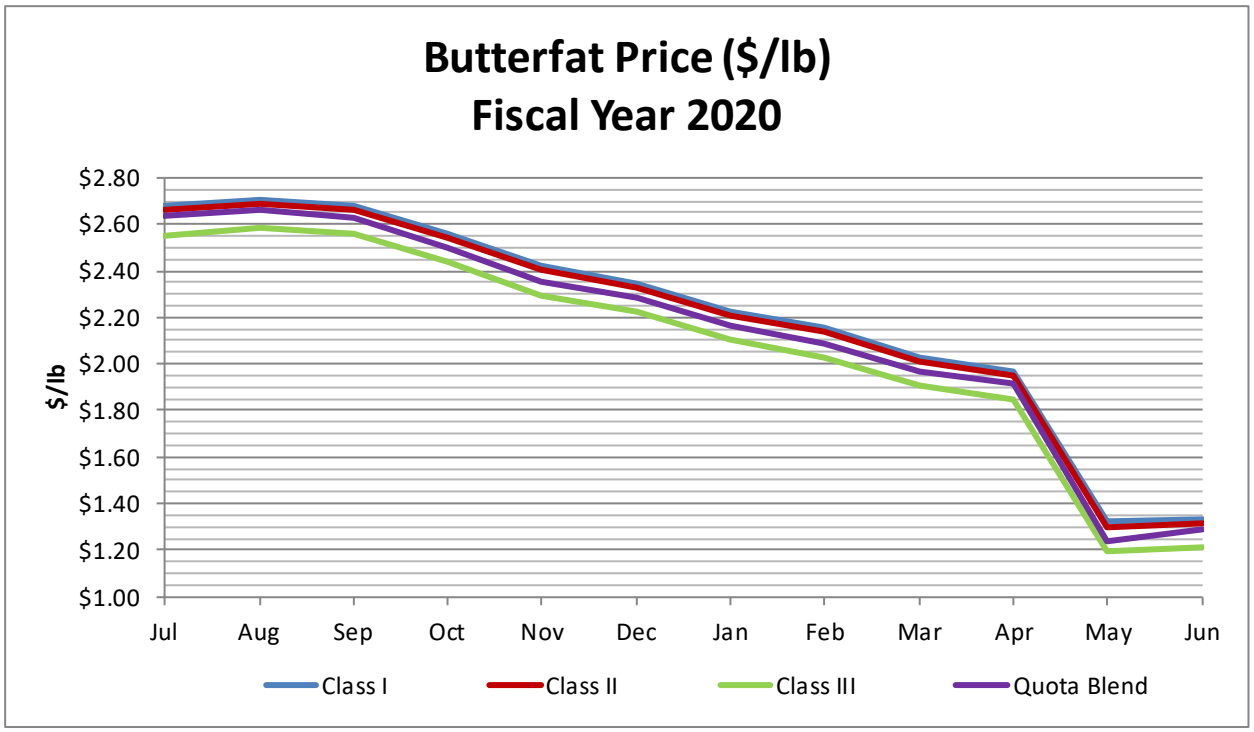
ANNOUNCED MINIMUM PRICES IN FISCAL YEAR 2020

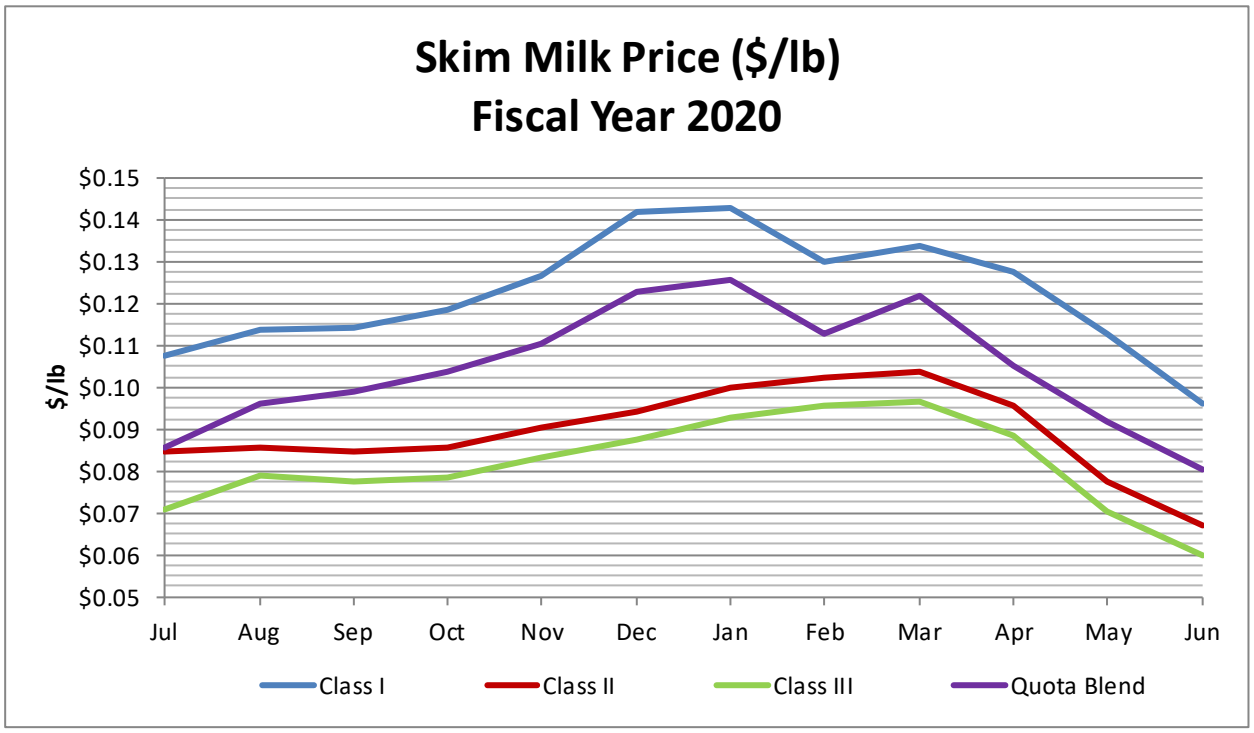
Cows generally produce milk that has 3.5% - 4% butterfat content. The dairy industry often uses a reference price for milk having 3.5% butterfat content. One hundred pounds of milk (a hundredweight, abbreviated "cwt") with 3.5% butterfat content consists of 3.5 pounds of butterfat and 96.5 pounds of skim milk. Skim milk consists of water (over 90% of skim milk weight) and solids that are not fat (lactose, protein, and minerals). In Montana, an individual producer is paid on the actual butterfat and skim milk produced by the dairy's herd for each month of production.

The charts below show announced minimum prices for months in fiscal year 2020 (July 2019 – June 2020) along with the calculated quota price based on actual milk utilization. Milk prices trended higher in fiscal year 2020 until January 2020 because of increased skim milk prices. Skim milk prices declined significantly in May and June 2020 due to market conditions driven by

the COVID-19 pandemic. Butterfat prices decreased steadily through April and dropped by approximately 35% in May 2020.

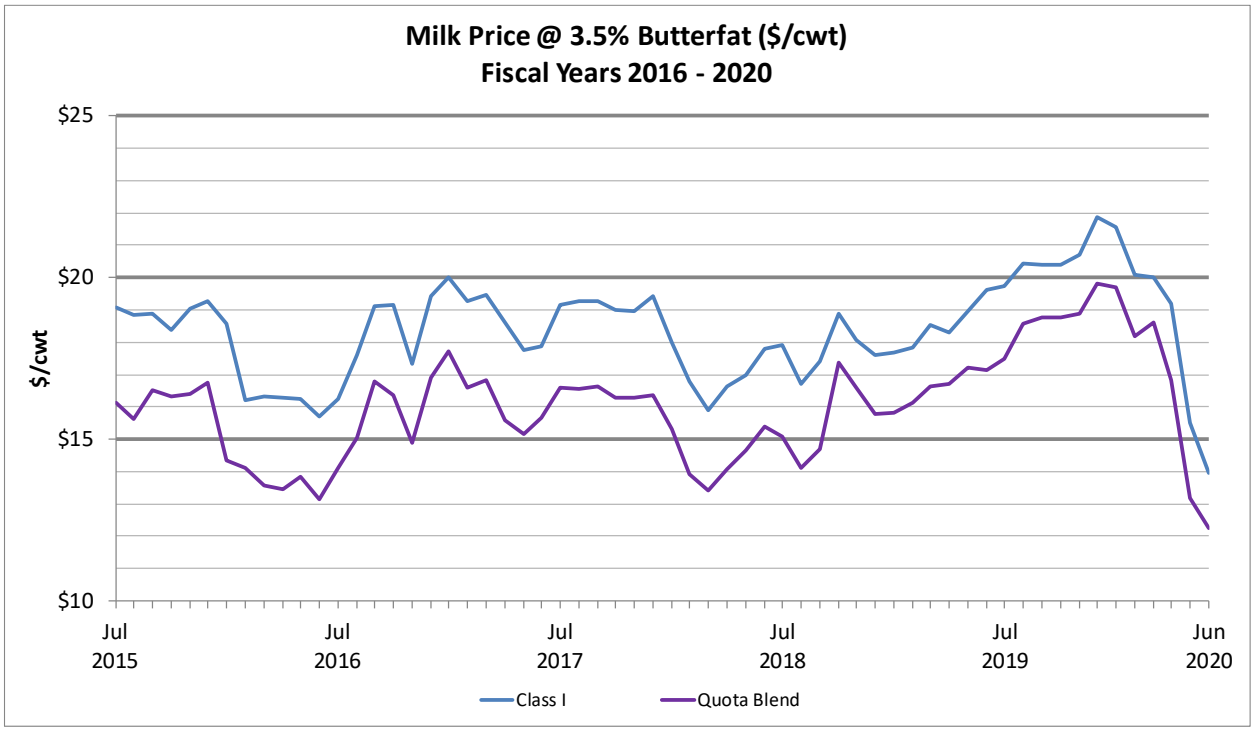


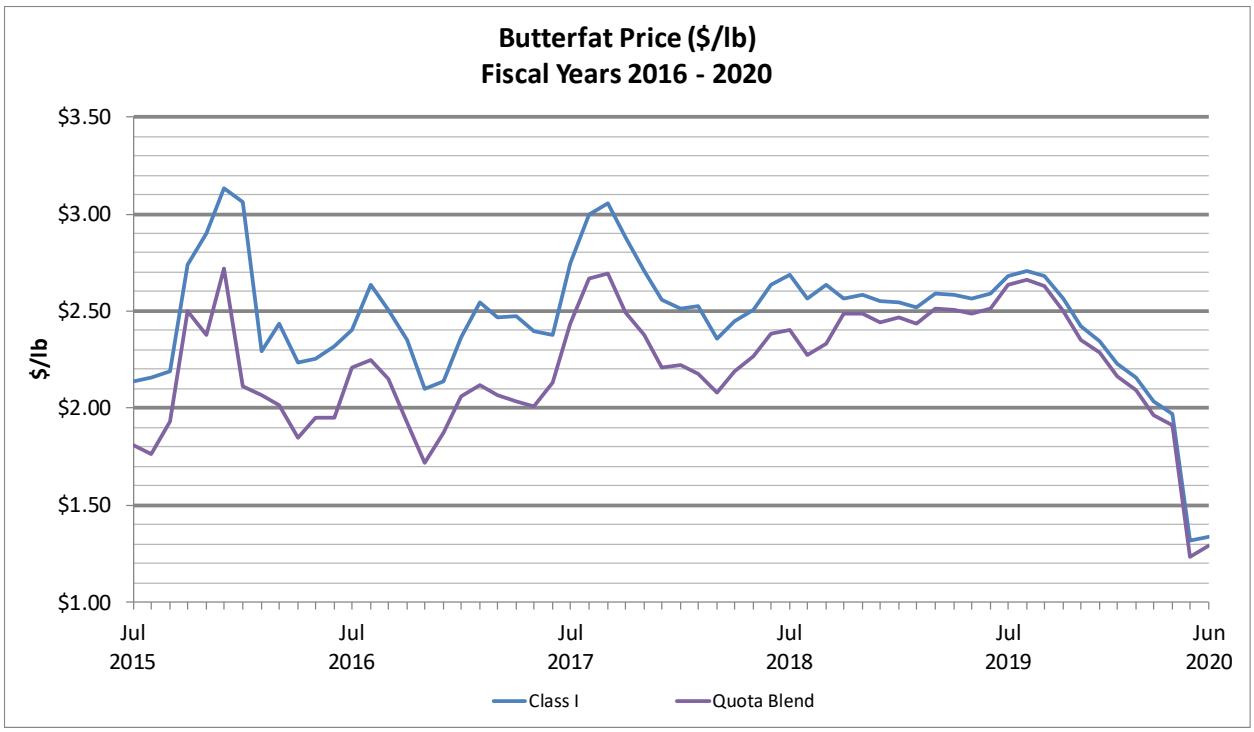


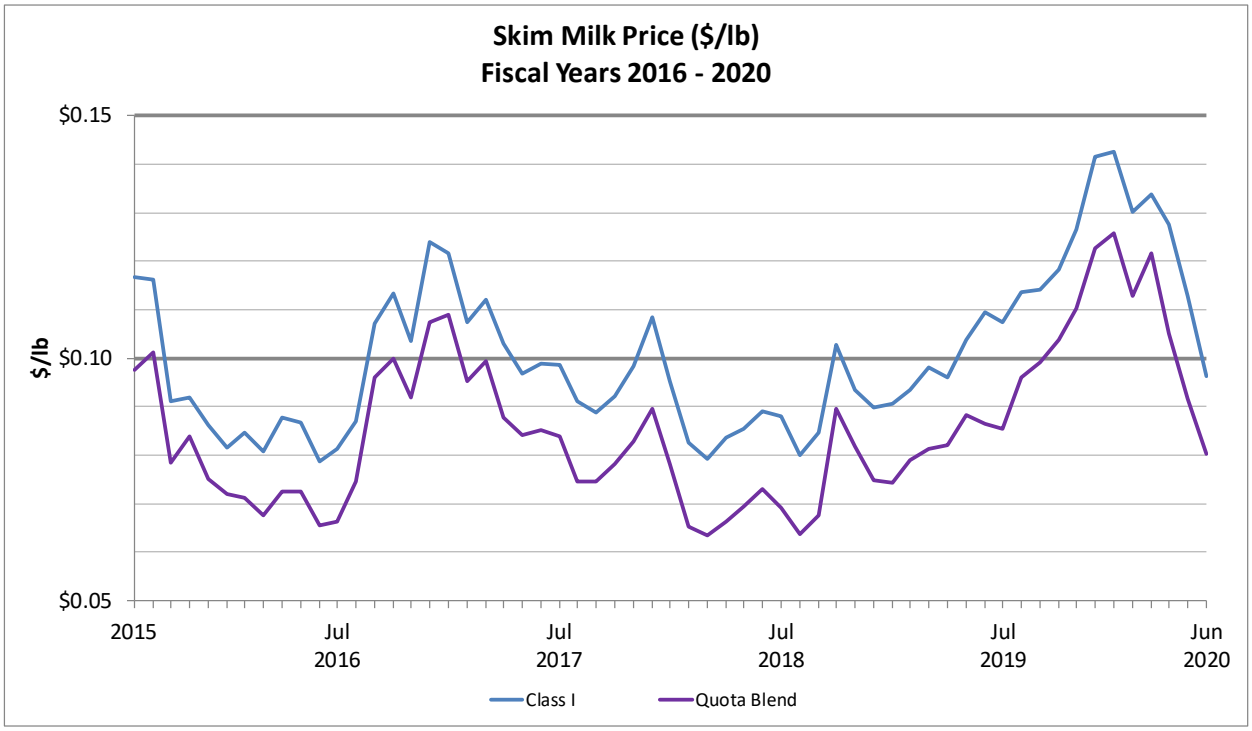

Skim Milk Price ($/lb)
Fiscal Year 2020
$/lb
$0.15
$0.14
$0.13
$0.12
$0.11
$0.10
$0.09
$0.08
$0.07
$0.06
$0.05
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Class I
Class II
Class III
Quota Blend

PRICE CHARTS JULY 2015 – JUNE 2020

The following charts show Montana Class I prices and Montana Quota Blend producer prices for milk containing 3.5% butterfat, butterfat component of milk, and skim milk component of milk. The prices received for milk with 3.5% butterfat in fiscal year 2020 were mostly higher than the prior four years until April 2020. The trend of increasing butterfat prices appears to have paused or ceased early in fiscal year 2020. The trend of decreasing skim milk prices appears to have paused or ceased early in fiscal year 2019. The impact of the amendment to Montana's Class III butterfat price formula in October 2018 is evident in the butterfat price chart. The impact and magnitude of the COVID-19 pandemic on butterfat and skim milk prices in the last quarter of fiscal year 2020 is also evident.



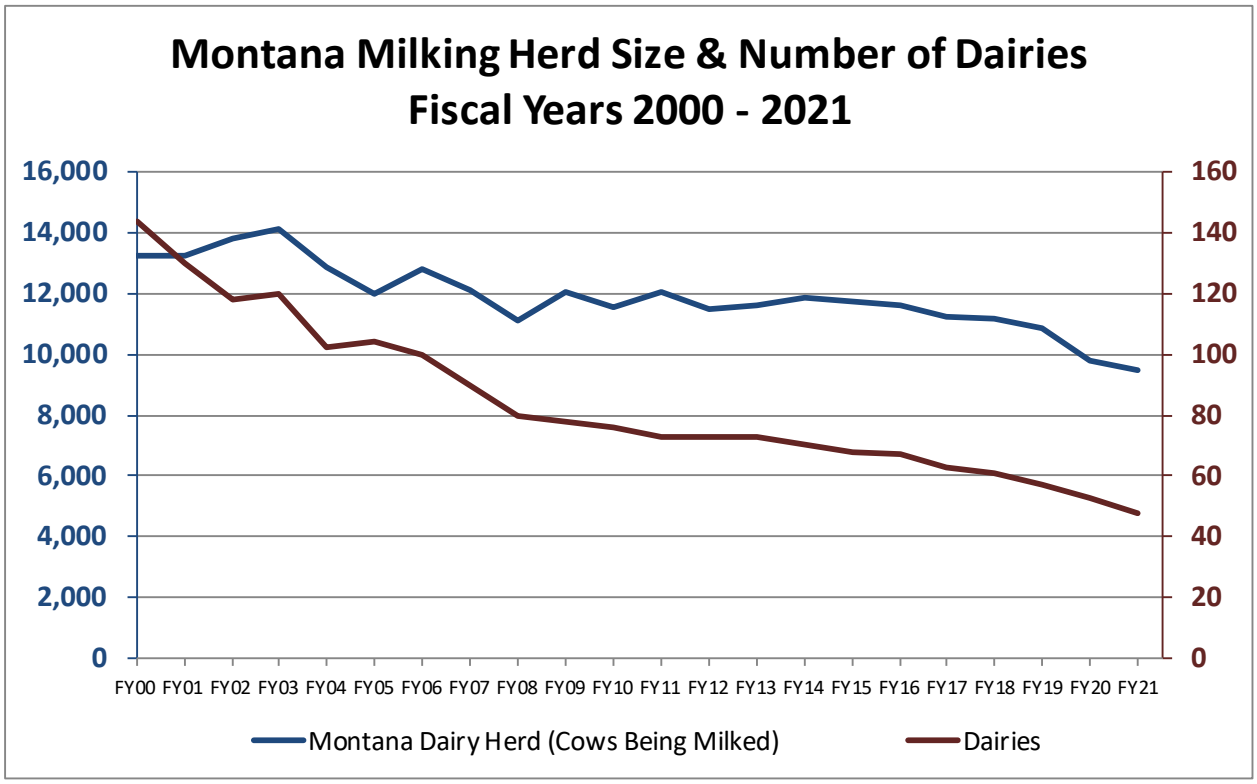

Butterfat Price ($/lb)
Fiscal Years 2016 - 2020
$3.50
$3.00
$2.50
$2.00
$1.50
$1.00
$/lb
Jul 2015
Jul 2016
Jul 2017
Jul 2018
Jul 2019
Jun 2020
Class I
Quota Blend

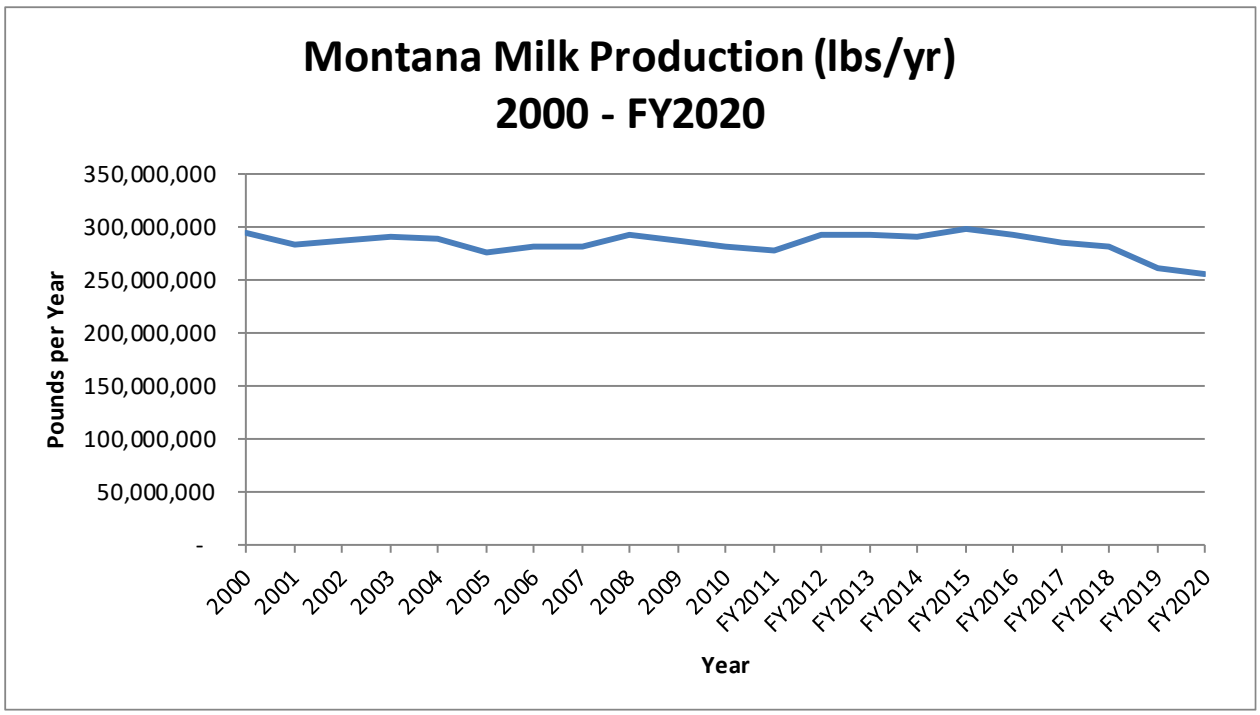

Skim Milk Price ($/lb)
Fiscal Years 2016 - 2020
$0.15
$0.10
$0.05
$/lb
2015
Jul 2016
Jul 2017
Jul 2018
Jul 2019
Jun 2020
Class I
Quota Blend

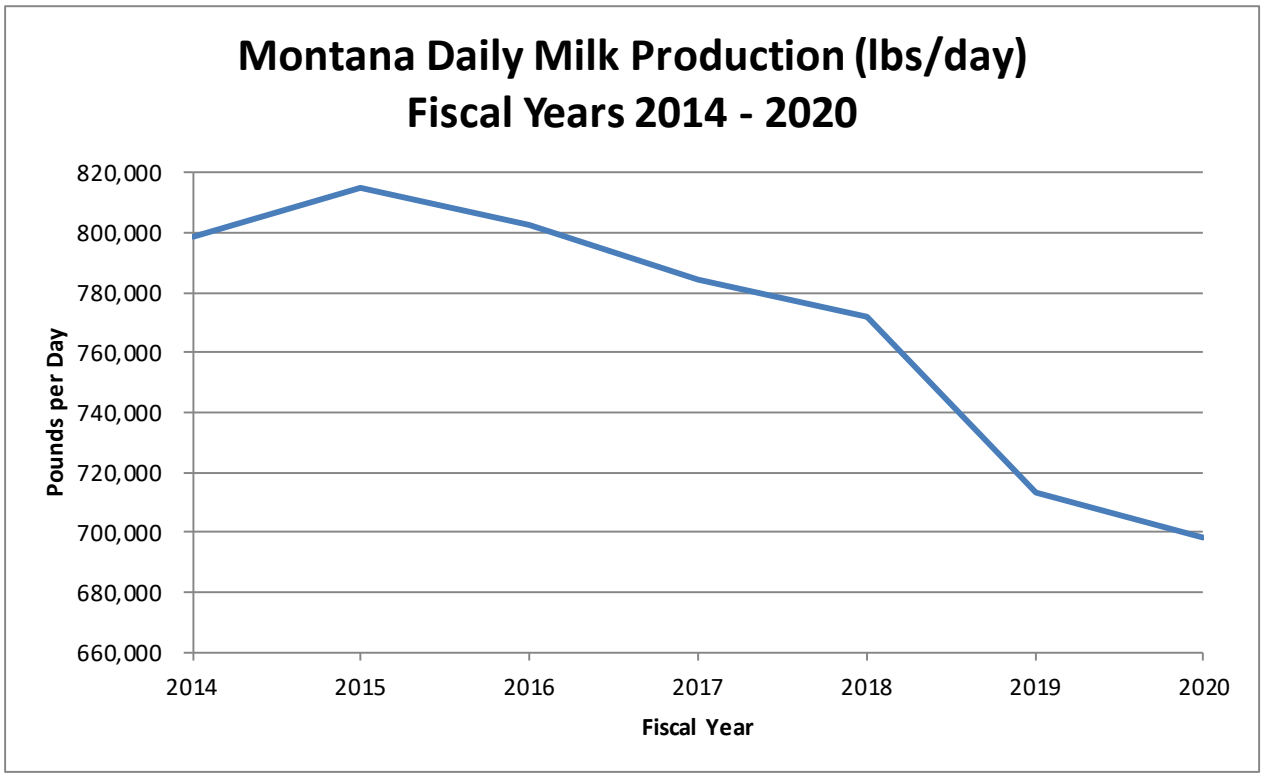
MONTANA MILK PRODUCTION

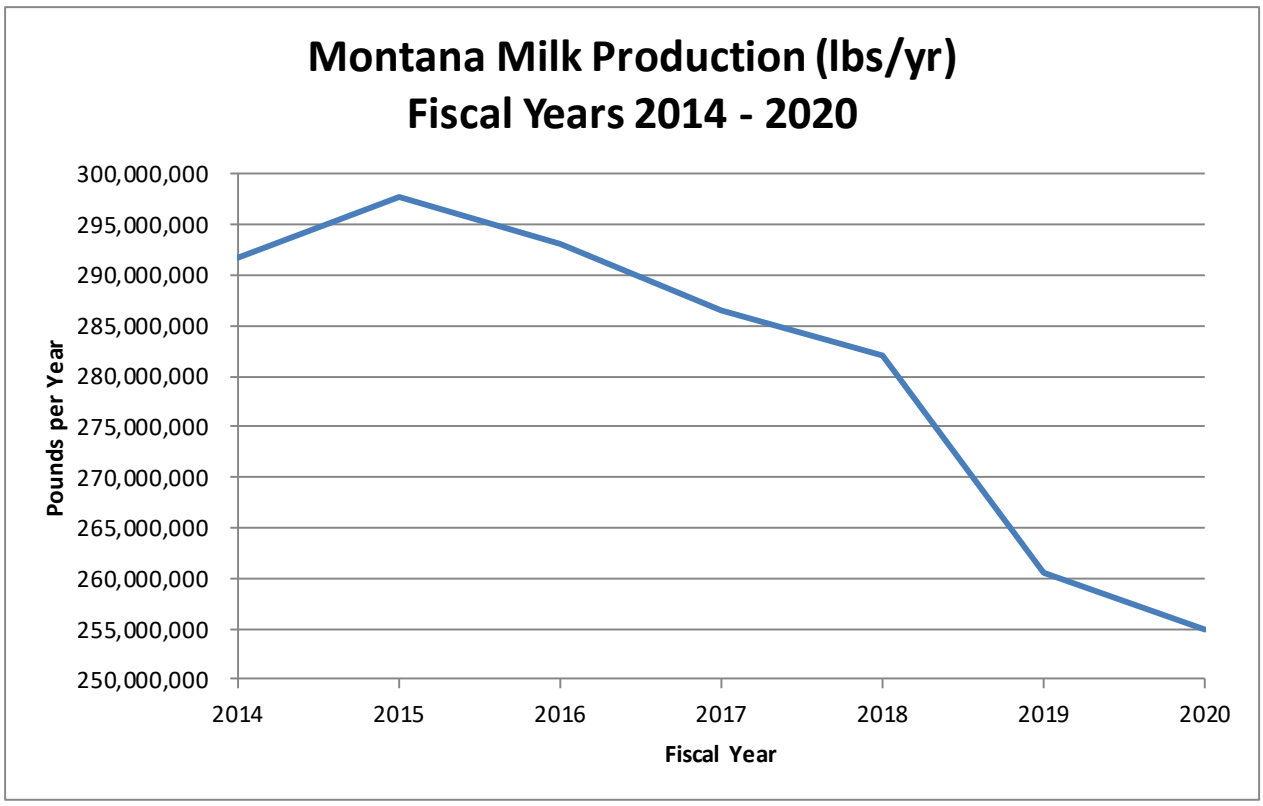
Dairies that participate in Montana's pool marketing system account for most of Montana's milk production. These dairies supply milk to Darigold's processing plant in Bozeman and Meadow Gold's processing plants in Great Falls and Billings. Montana Correctional Enterprise's dairy and processing plant in Deer Lodge are also included in pool statistics. Dairies that are licensed as producer-distributors account for the rest of Montana milk production. The map on page 32 shows the counties in which dairies are licensed to operate in fiscal year 2021.

The following charts show the size of Montana's dairy herd and the number of dairies licensed in fiscal year 2000 through fiscal year 2021, Montana milk production from 2000 through fiscal year 2020, and total milk production (per year and per day) for fiscal year 2014 through fiscal year 2020. The size of Montana's milking herd is based on information provided by producers and producer-distributors in annual license applications. From fiscal year 2000 to fiscal year 2020, the number of cows being milked declined by nearly 26%, while the number of dairies declined by 63%. The average number of cows being milked per dairy increased from 92 cows per dairy in fiscal year 2000 to 185 cows per dairy in fiscal year 2020. The reduction in production is less than the reduction in herd size due to an increase in dairy cow productivity. Montana milk production in fiscal year 2020 was 13.4% lower than in 2000, with most of the decrease occurring in fiscal year 2019. Production in fiscal year 2020 was the lowest in the 21 years shown in the charts and was 10.5% lower than the average of the 2000 – 2020 time period.

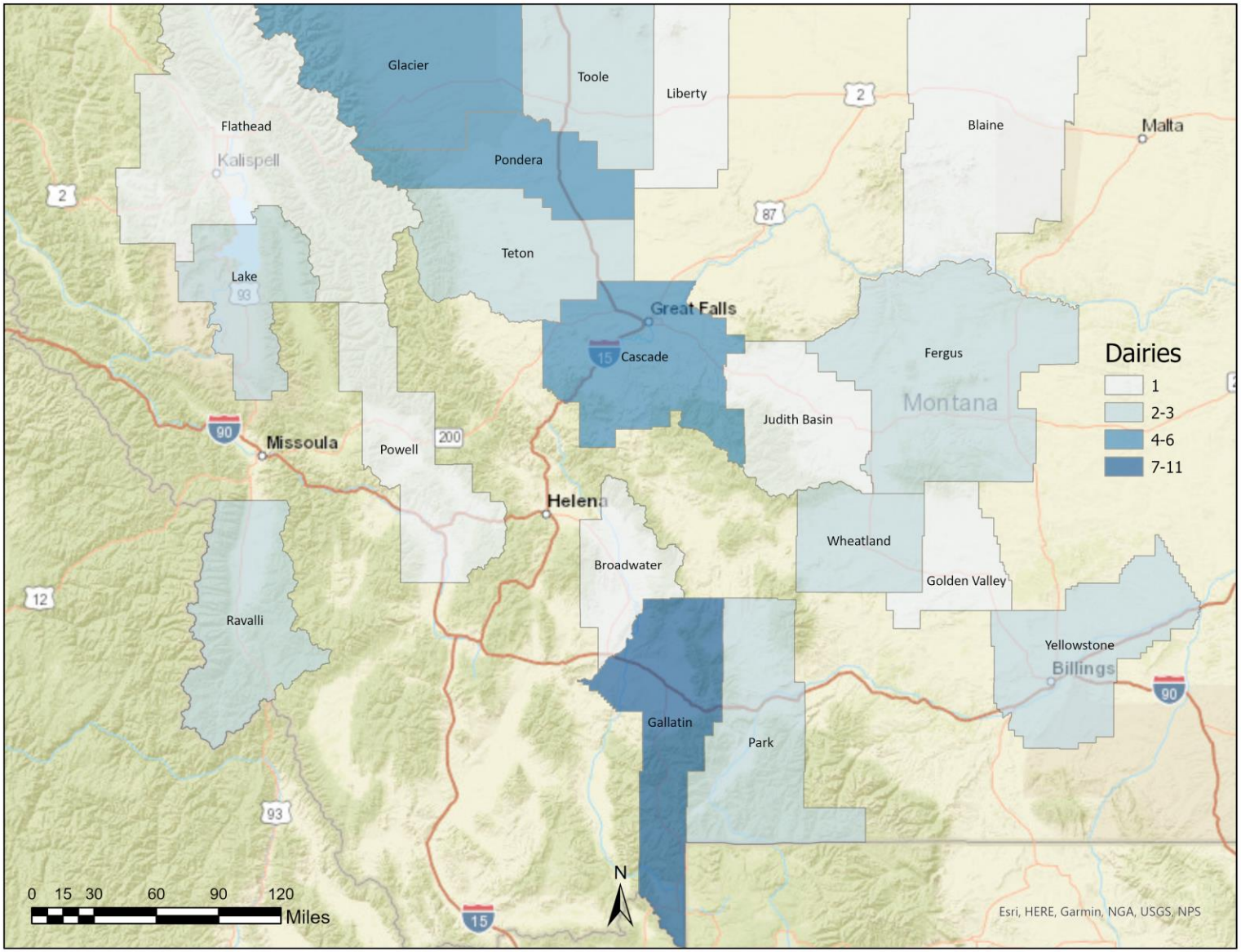



Montana Milk Production (lbs/yr)
2000 - FY2020
Pounds per Year
350,000,000
300,000,000
250,000,000
200,000,000
150,000,000
100,000,000
50,000,000
-
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
FY2011
FY2012
FY2013
FY2014
FY2015
FY2016
FY2017
FY2018
FY2019
FY2020
Year


Montana Daily Milk Production (lbs/day)
Fiscal Years 2014 - 2020
Pounds per Day
820,000
800,000
780,000
760,000
740,000
720,000
700,000
680,000
660,000
2014
2015
2016
2017
2018
2019
2020
Fiscal Year


Montana Milk Production (lbs/yr)
Fiscal Years 2014 - 2020
300,000,000
295,000,000
290,000,000
285,000,000
280,000,000
275,000,000
270,000,000
265,000,000
260,000,000
255,000,000
250,000,000
Pounds per Year
2014
2015
2016
2017
2018
2019
2020
Fiscal Year

Montana Dairies by County Licensed for Fiscal Year 2021



MILK IMPORTS / EXPORTS

In the discussion of Montana's milk imports and exports, the terms refer to trade between Montana and other states, not international trade.

MILK IMPORTS

Bulk Milk

A provision in the Milk Control Act (81-23-302(10), MCA) specifies that distributors with processing facilities in the state shall *"whenever possible, purchase milk from Montana producers for the processing of products to be sold in this state if milk is available from Montana producers at the price set by the board."* In fiscal year 2020, pool handlers imported 28.7 million pounds of bulk unpasteurized milk, an average of approximately 2.4 million pounds per month. In comparison, Montana producers delivered over 249 million pounds of milk to pool handlers in fiscal year 2020, an average of approximately 20.78 million pounds per month. Due to milk plant needs and the decline in supply from Montana producers, Montana distributors' imports of bulk milk increased by 3.4 million pounds in fiscal year 2020, with over 75% of the increase being attributable to a surge of imports in March 2020 to address short-term demand created by the COVID-19 pandemic.

The bulk milk imports are primarily attributed to Meadow Gold – Billings purchasing milk from Wyoming producers, processing the milk, and distributing it to the Wyoming market. Infrequently, pool handlers import bulk milk for other reasons, such as enabling a plant to be shut down during a holiday. Current levels of bulk milk imports are lower than Class I packaged milk exports for any given month. As such, Montana is a net exporter of milk to Wyoming.

Processed Dairy Products

Processed dairy products are imported by both out-of-state distributors and in-state distributors. The following table shows the dairy product imports in fiscal year 2020 in units of pounds of milk equivalent calculated on a milk solids basis. Because Montana's milk equivalent conversion factors changed in fiscal year 2019, estimates for fiscal year 2019 and later are not comparable to prior years, particularly for Class II uncultured products, cheese, and butter.

Estimated Montana Dairy Product Imports – Fiscal Year 2020

Product Description	Imports (lbs milk equivalent)
Class I Fluid Milk Products	36,432,113
Class II Fluid Cream Products	41,251,732
Class II Uncultured Products *(ice cream & frozen yogurt)*	38,538,922
Class II Cultured Products *(cottage cheese, sour cream, yogurt)*	31,167,644
Class III Products *(cream cheese, cheese, butter)*	210,166,806

MILK EXPORTS

Montana exports include Class I fluid milk products packaged in Montana's pool plants, bulk unpasteurized milk, and bulk cream collected by pool handlers. Montana's exports of bulk milk and Class I packaged fluid milk products significantly exceed its bulk milk imports. The Bureau estimates that bulk cream exported from Montana could have produced approximately 4.5 million pounds of butter. In fiscal year 2020, approximately 9.6 million pounds of butter were consumed in Montana, almost all of it imported from outside of Montana.

Montana Milk Exports – Fiscal Year 2020

Product Description	Exports (lbs)
Bulk Cream	9,035,916
Bulk Milk	13,724,036
Class I Packaged Fluid Milk Products	100,560,697
Total	**123,320,649**

MONTANA POOL MARKETING SYSTEM

EXPLANATION OF POOLING & QUOTA SYSTEM

Montana Pool System

Montana's pool marketing system enables producers to receive uniform milk prices (for milk of equivalent butterfat content) based on the overall utilization of pool milk received by all of Montana's pool handlers, plus the Montana Correctional Enterprises dairy plant. Without the pool marketing system, an individual dairy's milk price would be completely dependent upon how the receiving plant utilized the milk. By having a pool marketing system, variation in blend prices (for milk of identical butterfat content) for producers delivering to different plants does not occur. Because of the statewide pooling arrangement, producers supplying an individual plant are not as exposed to the volatility of that plant's marketing "wins" and "losses."

Quota System

Montana's quota system was established in an effort to discourage overproduction that would depress statewide pool blend prices. Montana's quota system establishes a $1.50/cwt differential in the price of milk produced "in quota" over the price of milk produced "in excess" of quota.

Excess production accounted for 0.86% of production in fiscal year 2020, down from 1.60% in fiscal year 2019. The decrease resulted from the sale of quota from dairies that went out of business to dairies that used the quota to reduce the portion of their production that was in excess of quota. Many of the cows sold by dairies that closed in fiscal year 2020 were reportedly sold to out-of-state buyers.

Montana's quota system allows for additional quota to be allocated but does not allow for outstanding quota to be reduced. An adjustment (increase) in quota happens when both of the following conditions occur: (1) more than 83.5% of non-surplus quota milk is utilized in Class I and Class II and (2) non-surplus quota milk utilized for Montana Class I and Class II products increases relative to two years prior. In calendar year 2019, 58.4% of non-surplus quota milk was utilized in Class I and Class II, and non-surplus quota milk utilized for Montana Class I and Class II products decreased by 9.2 million pounds compared to 2017. Because of generally steady decline in Montana Class I and Class II utilization and steady levels of production, the last time there was an adjustment (increase) in quota was 2001.

The provisions of Montana's administrative rules allow for quota to be provided to a "new eligible producer" for a portion of production. For a new eligible producer, the following sales to a pool handler are treated as if the milk was quota milk: 20% of sales to a pool handler in April – August and 35% of sales in September – March. If the new eligible producer purchases quota, the described assignment of quota is reduced by the amount of quota purchased.

Producers are allowed to transfer quota. Per ARM 32.24.502(3), producers may lose quota if delivery of milk to pool handlers is discontinued for over 90 consecutive days. If such producer's quota is not transferred within the 90-day period, it is forfeited. Forfeited quota is allocated to all remaining eligible producers on the following May 1 if the total unassigned quota is 500 lbs/day or more.

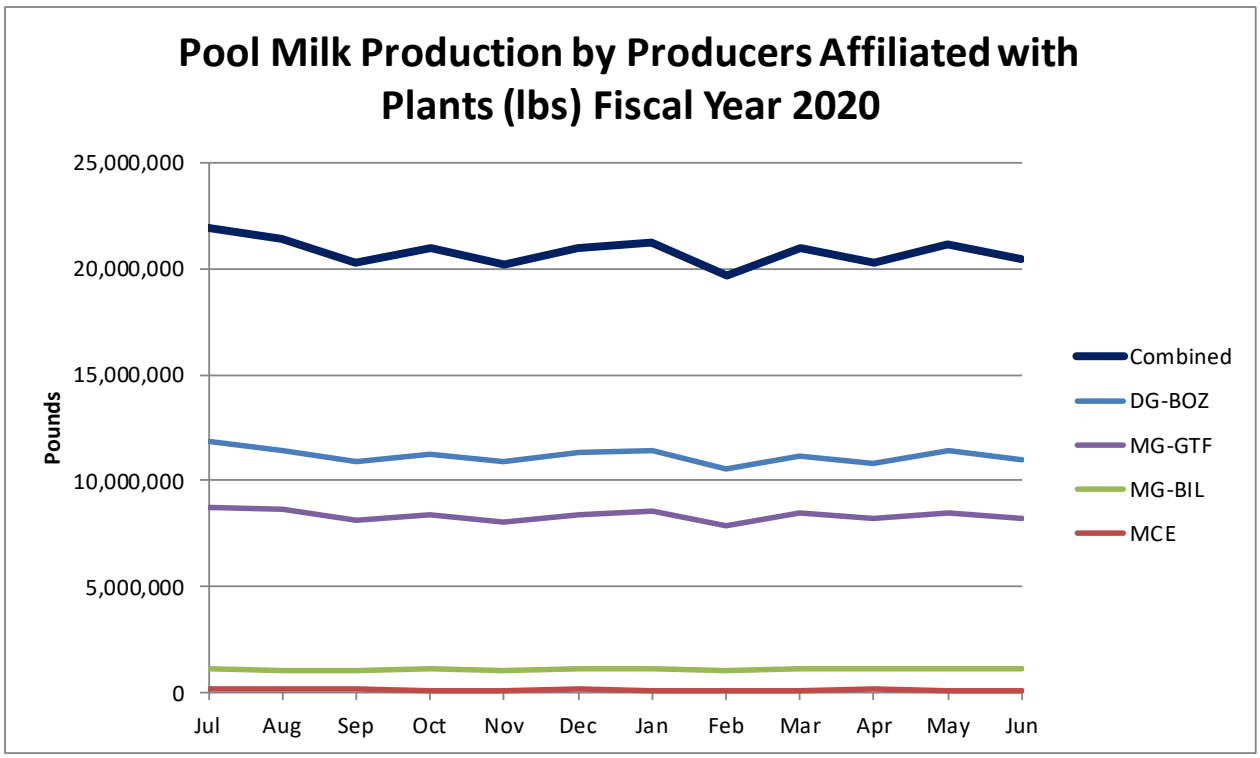
POOL PRODUCTION

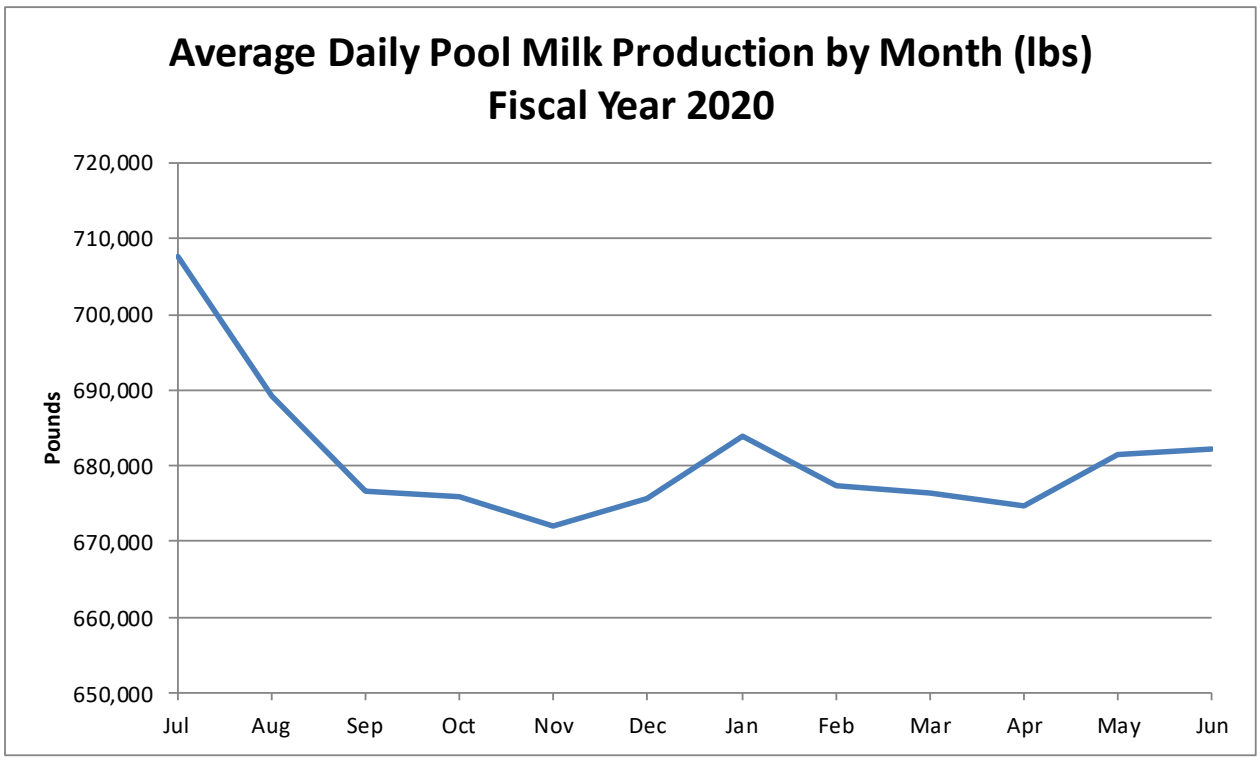
In fiscal year 2020, 51 dairies produced and delivered milk to three pool handlers, plus the Montana Correctional Enterprises plant. The following table shows the Montana milk pool's annual production, average butterfat content, weighted average pool price, and gross receipts for fiscal year 2012 through fiscal year 2020. The butterfat content was the highest in the nine-year period. In fiscal year 2020 (relative to fiscal year 2019), production decreased by 2.25%; the weighted average price increased by 8.9%; and annual gross receipts increased by 6.4%.

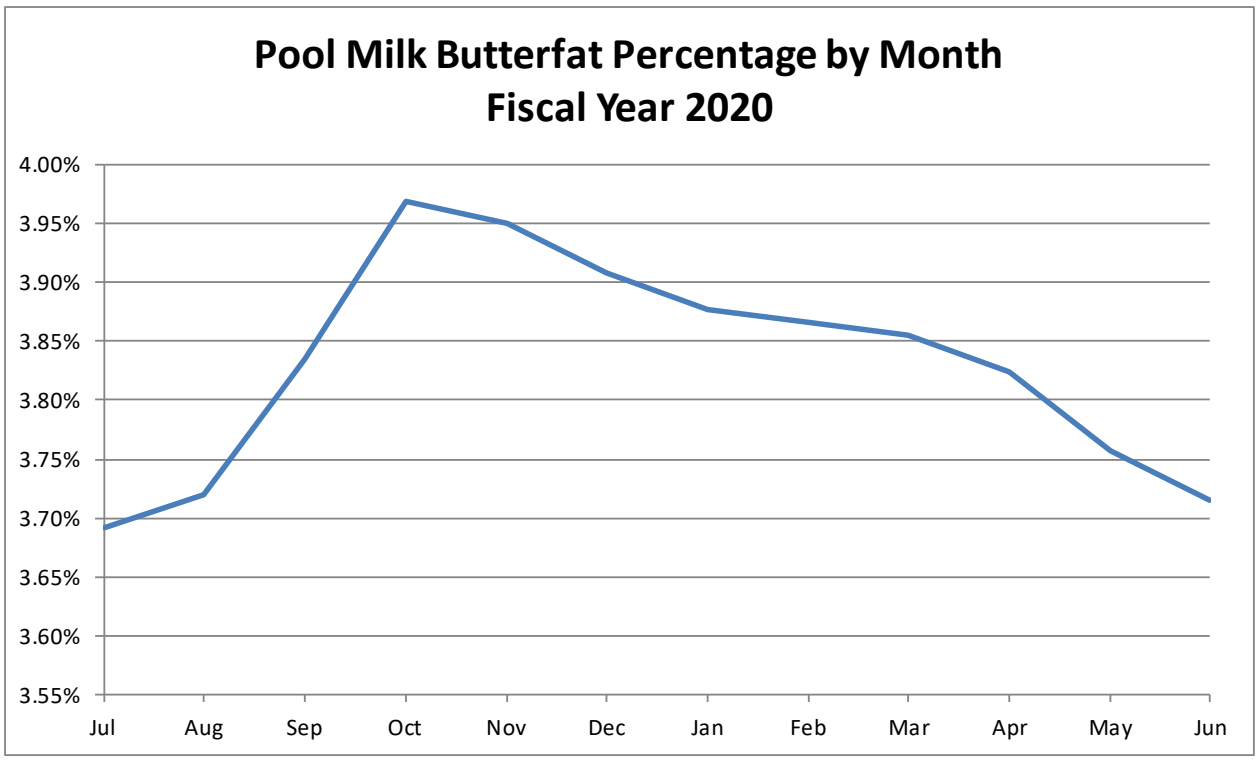
Summarized Pool Information: Fiscal Year 2012 – 2020

Fiscal Year	Production (lbs)	Butterfat (%)	Weighted Average Price ($/cwt)	Annual Gross Receipts ($)
2012	288,601,895	3.69%	$18.71	$53,989,689
2013	288,126,166	3.73%	$19.01	$54,782,758
2014	286,550,985	3.78%	$21.79	$62,446,124
2015	292,232,179	3.73%	$19.93	$58,232,010
2016	287,449,454	3.72%	$15.39	$44,251,077
2017	280,582,982	3.74%	$16.36	$45,912,344
2018	276,252,329	3.78%	$16.05	$44,351,192
2019	255,057,344	3.81%	$16.78	$42,802,717
2020	249,308,894	3.83%	$18.27	$45,545,253

The following charts provide information from fiscal year 2020 about pool production on a monthly basis to show seasonal aspects of production. The amount (weight) of monthly production is impacted by the number of days of the month, the number of cows being milked, dairy cow productivity, and herd management. The first chart shows milk received from pool producers by each of Montana's pool handlers, plus the Montana Correctional Enterprises plant. Dairy cows experience what is referred to as the "spring flush" and produce more milk in the spring and early summer months. The second chart does not reflect this as much as it would in "normal" years because of the dairy closures in the second half of the fiscal year.


Pool Milk Production by Producers Affiliated with Plants (lbs) Fiscal Year 2020
25,000,000
20,000,000
15,000,000
10,000,000
5,000,000
0
Pounds
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Combined
DG-BOZ
MG-GTF
MG-BIL
MCE

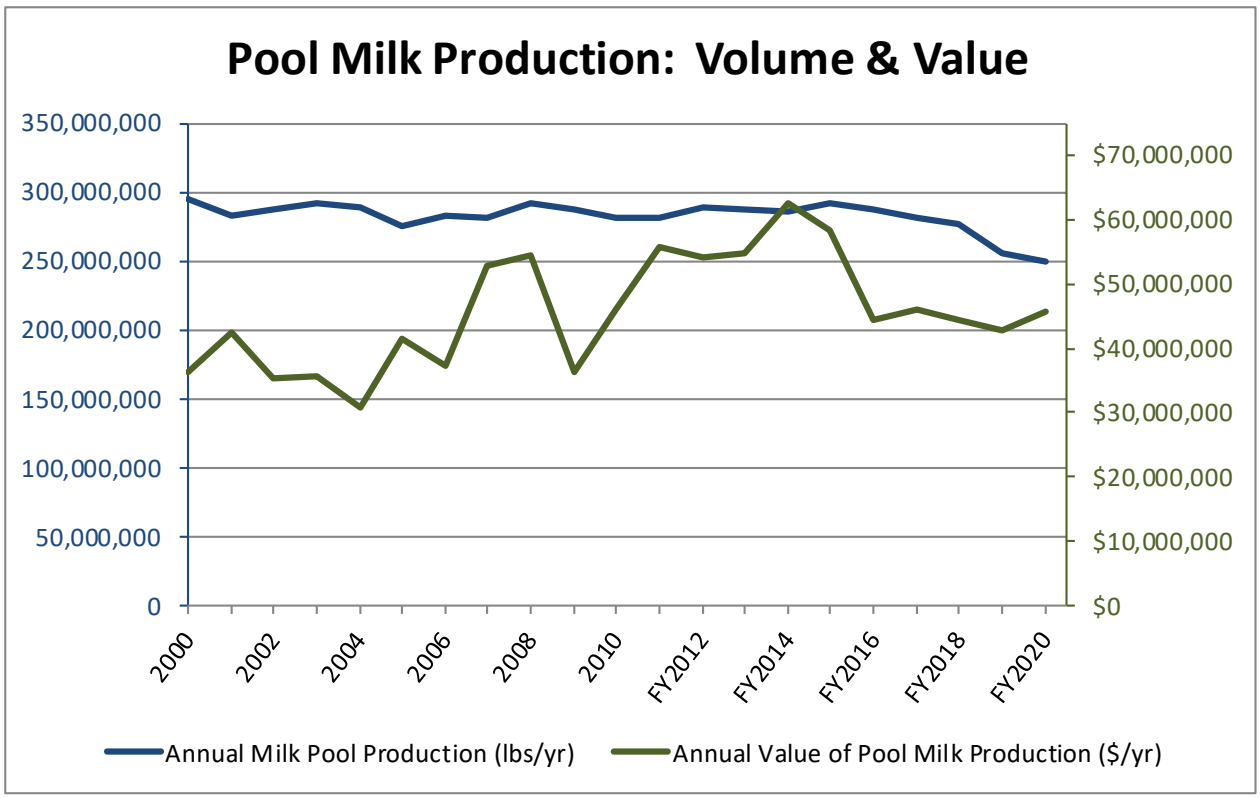

Average Daily Pool Milk Production by Month (lbs) Fiscal Year 2020
720,000
710,000
700,000
690,000
680,000
670,000
660,000
650,000
Pounds
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun

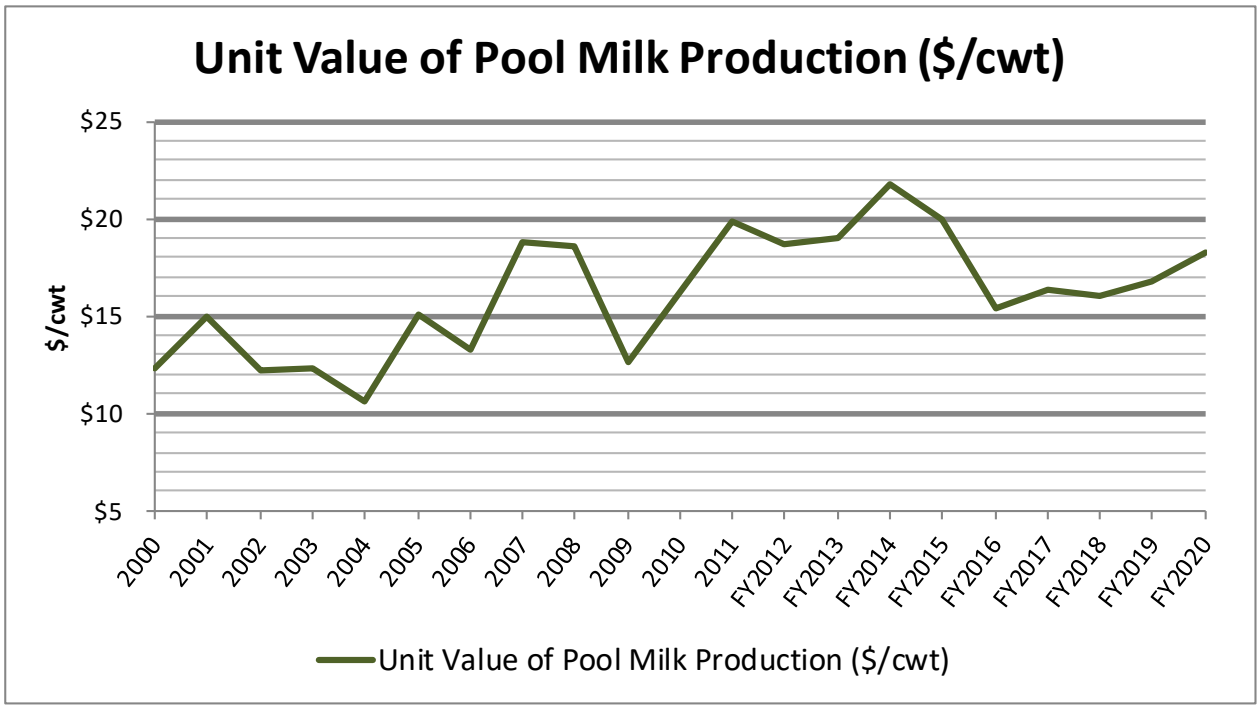


THE PRICE/COST OF POOL MILK

Montana's pool marketing system establishes how pool dairies are compensated for milk. The Bureau announces minimum prices prior to the month of production. Pool handlers report milk receipts and utilization information by the 8th day following the month of production; after which, the Bureau uses the information to calculate quota and excess prices and calculate minimum amounts to be paid to pool producers.

The following charts provide perspective on the volume of pool production, annual value of pool milk sold to pool handlers, and annual weighted average unit price paid for pool production from 2000 through fiscal year 2020. Fiscal year 2020 was the fifth consecutive year that production declined. Over the long term, the value of production has generally trended upward and reflected milk prices. Prices since fiscal year 2015 have been lower than the first half of the decade. Milk prices have roughly followed the path of other commodities (such as feedstuffs) during the time period, increasing dramatically in 2007; plunging in 2009; recovering to price levels similar to the 2007 – 2008 time period; setting a record high in 2014; and decreasing dramatically in 2015, with only modest recovery until higher prices materialized in fiscal year 2020, tempered by drastic declines in the last quarter due to COVID-19 market impacts.


Pool Milk Production: Volume & Value
350,000,000
300,000,000
250,000,000
200,000,000
150,000,000
100,000,000
50,000,000
0
$70,000,000
$60,000,000
$50,000,000
$40,000,000
$30,000,000
$20,000,000
$10,000,000
$0
2000
2002
2004
2006
2008
2010
FY2012
FY2014
FY2016
FY2018
FY2020
Annual Milk Pool Production (lbs/yr)
Annual Value of Pool Milk Production ($/yr)


Unit Value of Pool Milk Production ($/cwt)
$25
$20
$15
$10
$5
$/cwt
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
FY2012
FY2013
FY2014
FY2015
FY2016
FY2017
FY2018
FY2019
FY2020
Unit Value of Pool Milk Production ($/cwt)

The following table identifies the key factors that determine the value of Montana pool milk. The production and utilization factors result in a poolwide utilization value calculated for butterfat and skim milk produced by pool dairies. Adjustments are made to the skim milk utilization value for the transportation charges incurred for shipments of unprocessed pool milk between pool plants and for surplus milk sales.

Key Factors That Determine the Value of Montana Pool Milk
Production & Utilization Factors • poolwide production and butterfat content • announced minimum prices for skim milk and butterfat for each class • percentage of skim milk and butterfat utilized in each class *Transportation Charges for Intrapool Shipments of Unprocessed Milk* • the volume of sales of unprocessed pool milk between pool plants and shipment freight rates *Surplus Sale Factors* • volume of milk exported as Class I packaged surplus milk and location of the receiving market (whether the market is contiguous or non-contiguous to Montana) • volume of milk exported as bulk surplus milk, the sale proceeds received relative to the Montana classified value of the milk, and the freight costs of shipping the milk to out-of-state processors

Transportation charges incurred for shipments of unprocessed pool milk between pool plants are deducted from the pool skim milk utilization value.

"Surplus" milk is defined by ARM 32.24.150(42). In brief, surplus milk is milk produced in Montana that is not consumed in Montana, excluding sales of cream to out-of-state markets, inventory, shrink, and dumped milk. Surplus sale factors allow for adjustments to the value of pool milk that reflect market dynamics. Surplus milk may be milk sold to out-of-state markets in packaged form or in bulk. The majority of surplus milk is Class I packaged milk sold to out-of-state markets.

- For Class I packaged milk that is surplus milk, pool handlers pay the Montana Class I value less surplus sales adjustments established in rule that depend on whether the market is in a state that is contiguous or non-contiguous to Montana.
- For bulk surplus milk, the class of utilization is based on how the out-of-state receiving plant utilizes the milk. Most often, bulk surplus milk is classified as a Class III utilization because the receiving plants are cheese plants or powdered milk plants. The surplus adjustment for bulk surplus milk is the actual value received from the sales (market value), less an adjustment for freight charges requested by a pool handler, less the initial Montana utilization value (value based on Montana classified prices). Typically, bulk surplus sales adjustments are negative adjustments to the utilization value, but it is

possible to have a positive bulk surplus sales adjustment depending on the market value of milk and requested adjustment for freight charges.

Dairy Payroll: Quota / Excess Prices

The price an individual dairy is paid for the milk it sells in a month is based on whether the milk produced is within that dairy's quota right and the extent to which production exceeds quota. Quota milk production is priced $1.50/cwt higher than excess production. For each dairy, payment is based on the actual butterfat content of the dairy's monthly milk production.

The following table provides a schematic of the sequence for determining prices to be paid to individual dairies for milk produced in quota and milk produced in excess of quota. The quota price shown for milk in the Montana minimum price charts is for milk with 3.5% butterfat content. The quota price is determined by calculating the statewide pool's value of skim milk and butterfat (utilization of skim milk and butterfat multiplied by minimum prices for the associated class of milk); making adjustments to the pool skim milk value for transportation charges for shipments of unprocessed pool milk between pool plants and surplus sales adjustments; making adjustments to the pool skim milk value that maintain a stable balance in the producers' settlement fund; and applying calculations that create a $1.50/cwt differential between the quota milk price and excess milk price.

Skim Milk Portion of Milk	**Butterfat Portion of Milk**
Classification by Utilization for Skim Milk & Butterfat: I, II, III	
Poolwide Skim Milk Utilization Value *(classified announced prices multiplied by weight of Class I, II, III utilization)* Adjustments to Skim Milk Utilization Value: - Transportation Charges for Intrapool Shipments + / - Surplus Sales Adjustments + / - Settlement Fund Adjustments = Adjusted Poolwide Skim Milk Utilization Value	Poolwide Butterfat Utilization Value *(classified announced prices multiplied by weight of Class I, II, III utilization)*
Adjustments to create Quota / Excess Price Differential ($1.50/cwt)	
Skim Milk & Butterfat Quota / Excess Unit Prices ($/lb)	
Blend Price to be Paid to an Individual Dairy Based Upon Actual Butterfat Content	

Utilization of Pool Milk Receipts

Pool handlers submit reports to the Bureau that are used to determine the utilization of pool milk received. These reports show the weight of milk and butterfat used to produce products in the various classes of milk utilization. Ending inventory of Class I packaged milk is reported as a Class I utilization; and ending inventory of bulk milk is reported as a Class III utilization. Milk dumped is classified as a Class III utilization. Shrinkage, which is the difference between milk receipts and milk otherwise accounted for, is classified as a Class III utilization, except any

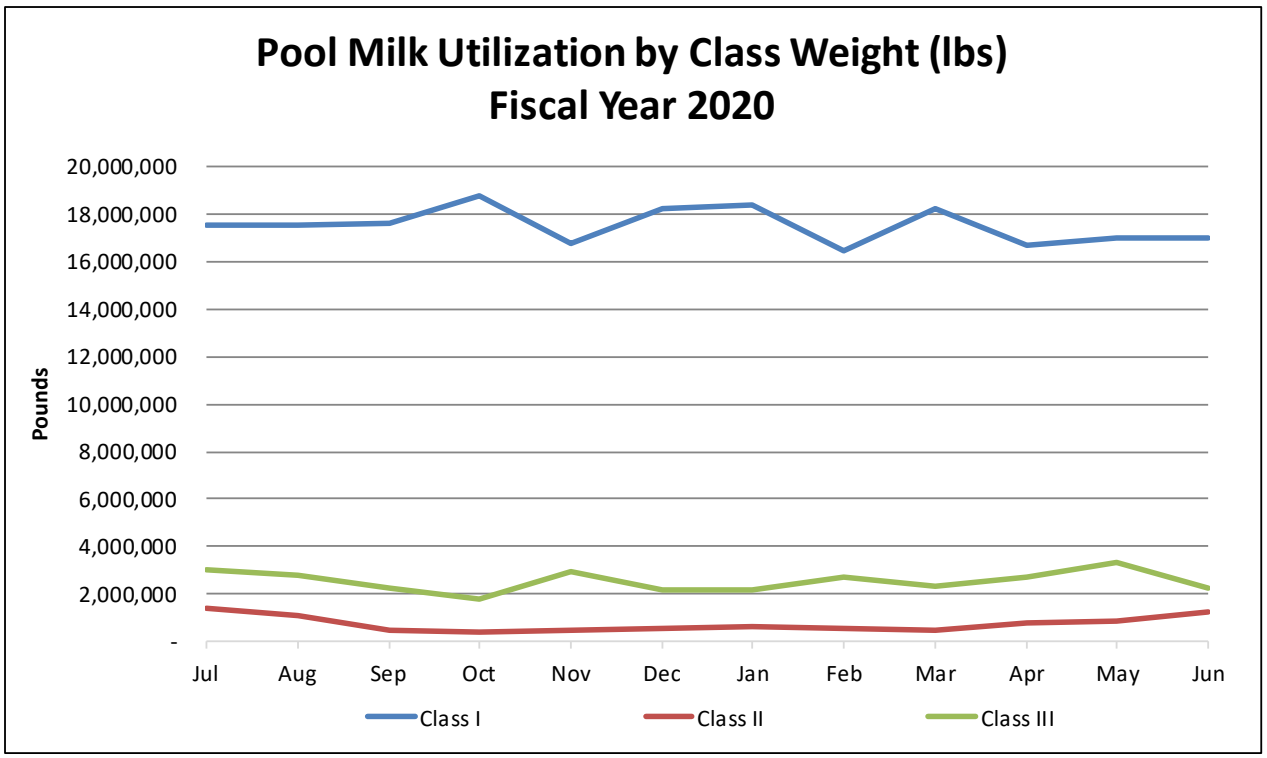
shrinkage in excess of two percent of producer receipts is classified as a Class I utilization. The purpose of classifying shrinkage exceeding the two percent threshold as a Class I utilization is to encourage pool handlers to be efficient in processing milk and to protect producers from bearing a cost for inefficient milk processing. The classification of unprocessed milk sold to other pool handlers is based on the receiving pool handler's utilization of the milk.

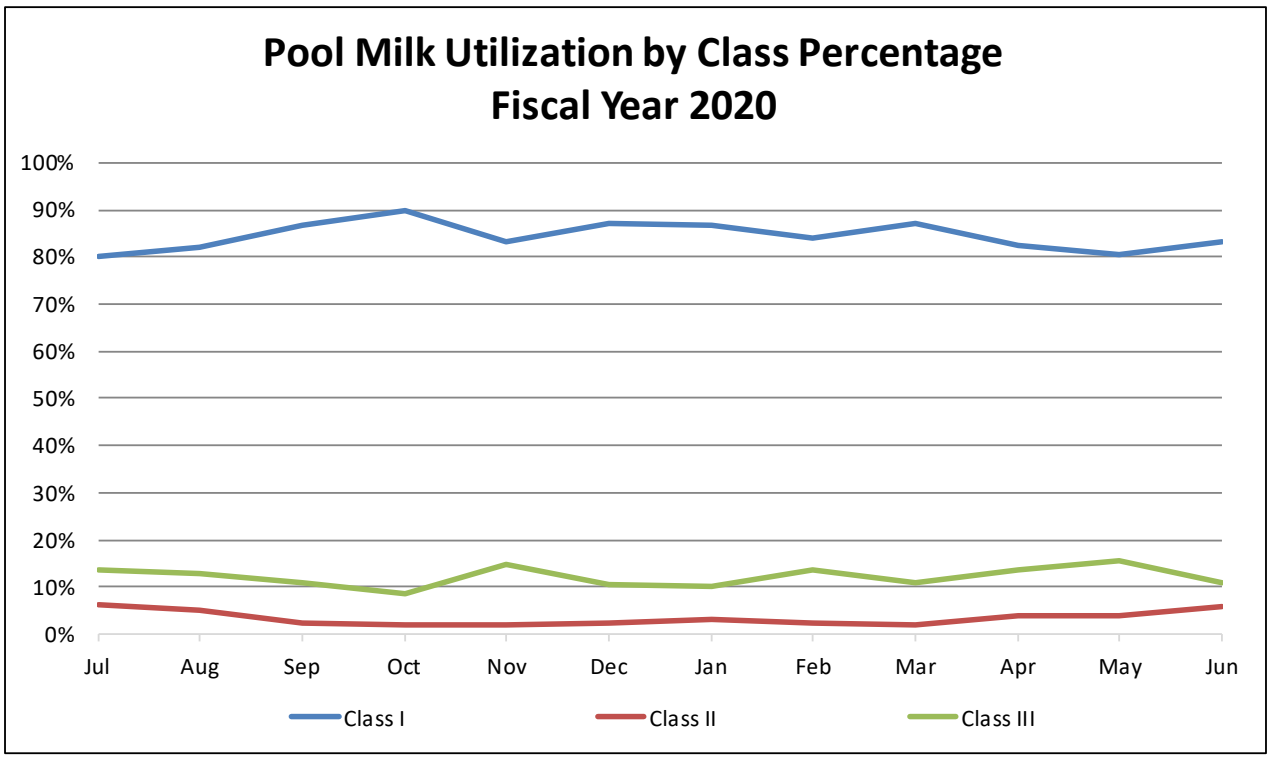
The following table summarizes the utilization of skim milk and butterfat by class, value of utilization, and weighted average unit value.

Fiscal Year 2020 Pool Milk Utilization Volume, Value, Average Unit Value Before Adjustments

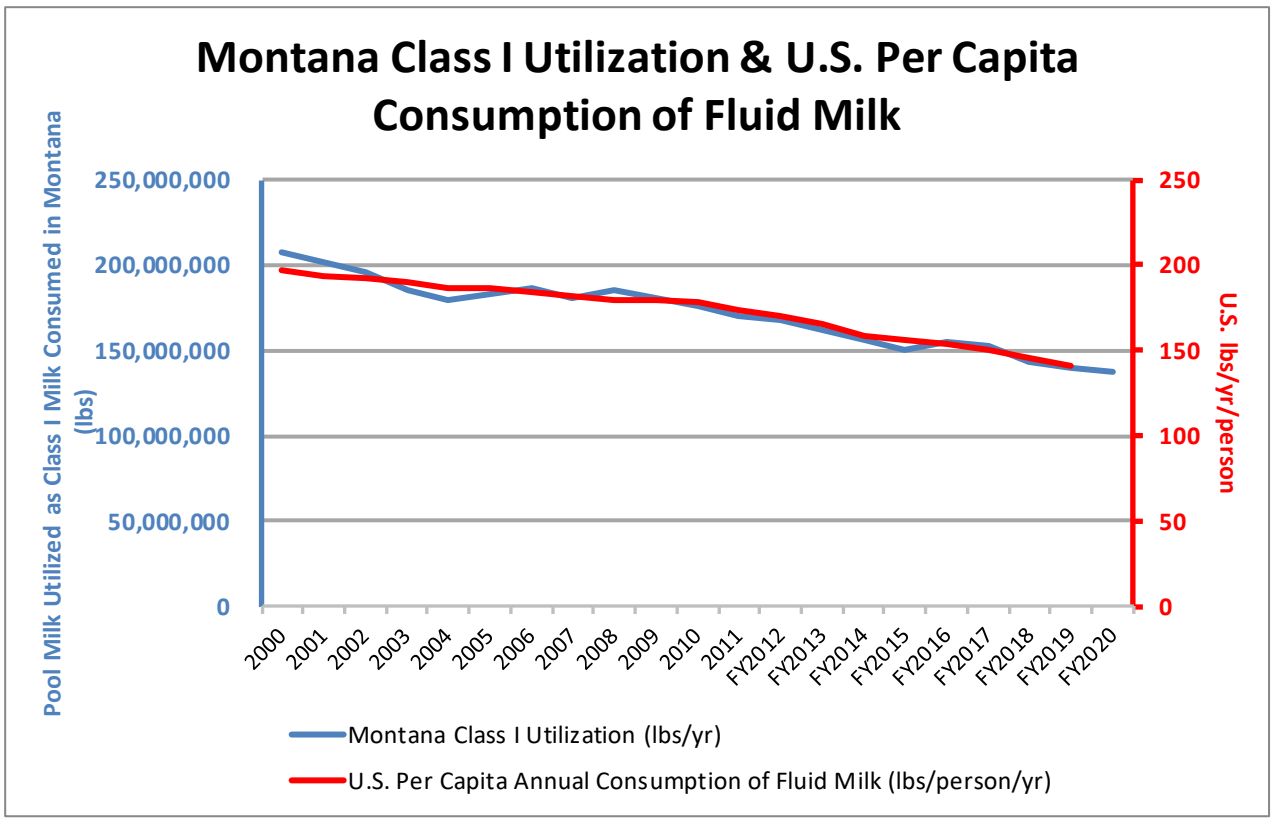
	CLASS I	CLASS II	CLASS III	All Classes – Before Adjustments
Skim Milk Utilization (lbs)	205,959,376	7,551,222	26,250,721	239,761,319
Skim Milk Utilization ($)	$25,294,439	$661,013	$2,112,296	$28,067,748
Skim Milk Utilization – Unit Value ($/lb)	$0.1228128	$0.0875372	$0.0804662	$0.1170654
Butterfat Utilization (lbs)	4,445,004	1,051,592	4,050,979	9,547,575
Butterfat Utilization ($)	$9,814,278	$2,299,917	$8,395,604	$20,509,799
Butterfat Utilization – Unit Value ($/lb)	$2.2079346	$2.1870811	$2.0724877	$2.1481684

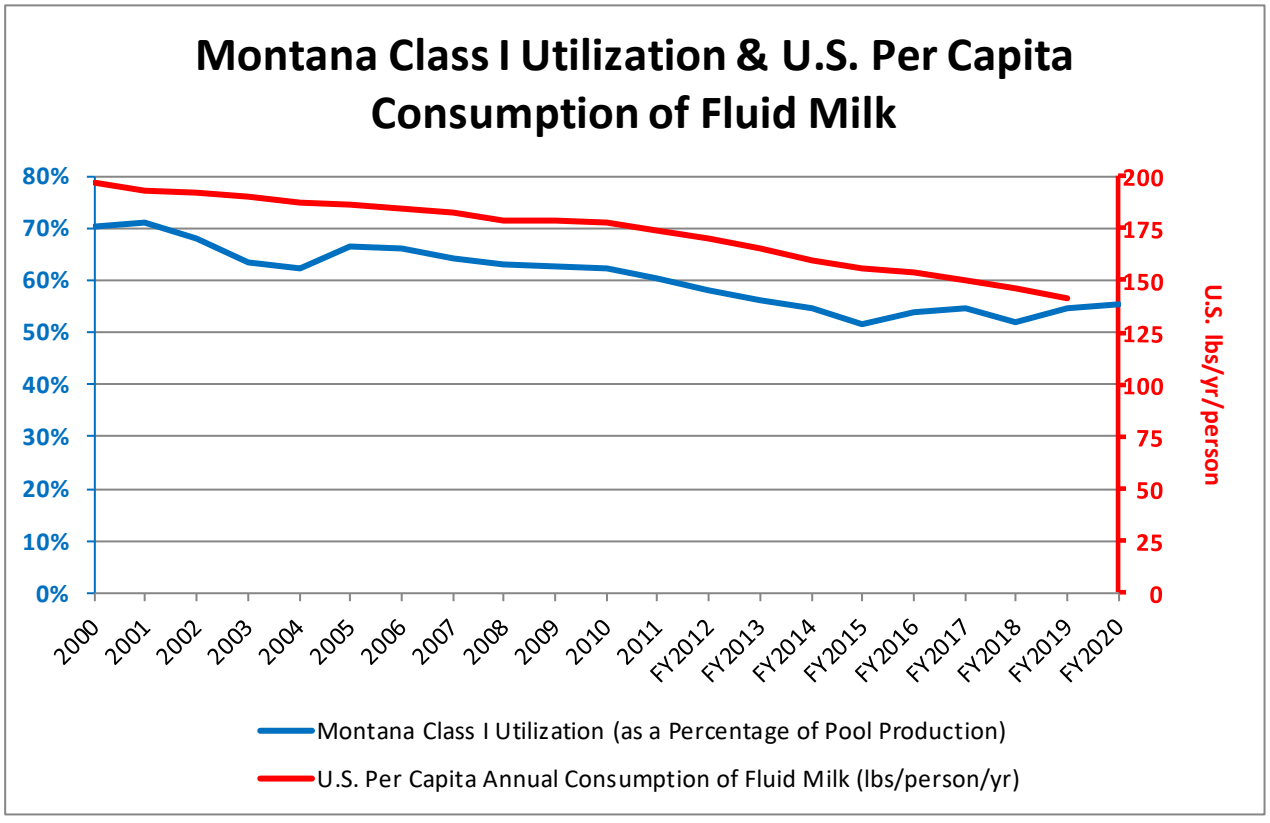
The following two charts show monthly poolwide utilization of milk in terms of pounds per month and percentage of production. Viewing utilization by percentage of production eliminates variation that is based on the number of days in a month. In terms of total utilization and utilization as a percentage of production, Class I utilization peaks in the fall months and is lowest in the spring and summer months. This seasonal trend is influenced by seasonal sales patterns (strongly influenced by school milk sales) and seasonality in milk production. Class II utilization peaks in the summer months and is driven by sales of ice cream and ice cream mix products.


Pool Milk Utilization by Class Weight (lbs)
Fiscal Year 2020
Pounds
20,000,000
18,000,000
16,000,000
14,000,000
12,000,000
10,000,000
8,000,000
6,000,000
4,000,000
2,000,000
-
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Class I
Class II
Class III


Pool Milk Utilization by Class Percentage
Fiscal Year 2020
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Class I
Class II
Class III

The following chart shows the percentage of Montana pool milk utilized as Class I milk consumed in the Montana market and the per capita consumption of fluid milk in the United States since 2000. The USDA Economic Research Service was the source of per capita consumption information (http://www.ers.usda.gov/data-products/dairy-data, accessed September 4, 2020). Since 2000, pool production has been relatively stable, and Montana's population increased from approximately 904,000 in 2000 to 1,069,000 in 2019 according to the U.S. Census Bureau. The trend for the percentage of pool milk utilized as Class I milk consumed in Montana is one of decline, which corresponds to the trend of declining per capita consumption of fluid milk in the United States. Total utilization of pool milk as Class I milk consumed in Montana has decreased by roughly 34% since 2000. Annual U.S. per capita consumption of fluid milk has declined by over 28%, from 197 pounds in 2000 to 141 pounds in 2019. The percentage of pool milk utilized as Class I milk consumed in Montana declined from accounting for 70.4% of pool production in 2000 to 51.4% in fiscal year 2015. In fiscal year 2020, the percentage of pool milk utilized as Class I milk consumed in Montana was 55.2%. The increased percentage in fiscal year 2020 vs. 2015 is a function of pool production decreasing more than Class I milk utilization decreased (for the Montana market). Potential factors influencing the long-term decline of the percentage of Class I pool milk consumed in Montana include increased availability and possibly market share of ultrapasteurized products (such as organic milk, lactose-free milk, and other specialty or branded products) that are imported into the state; loss of market share to a myriad of new beverage products, including plant-based milk substitutes; and changes in food distribution systems that have led to an increased imports of fluid milk by out-of-state distributors supplying Montana stores. Class II manufacturing in Montana accounts for a relatively small amount of utilization. Because production has been relatively steady and Montana dairy processors do not utilize a large percentage of pool milk for production of Class II and Class III products, the decrease in the percentage of pool milk utilized as Class I milk that is consumed in Montana is being offset by exports of surplus milk.

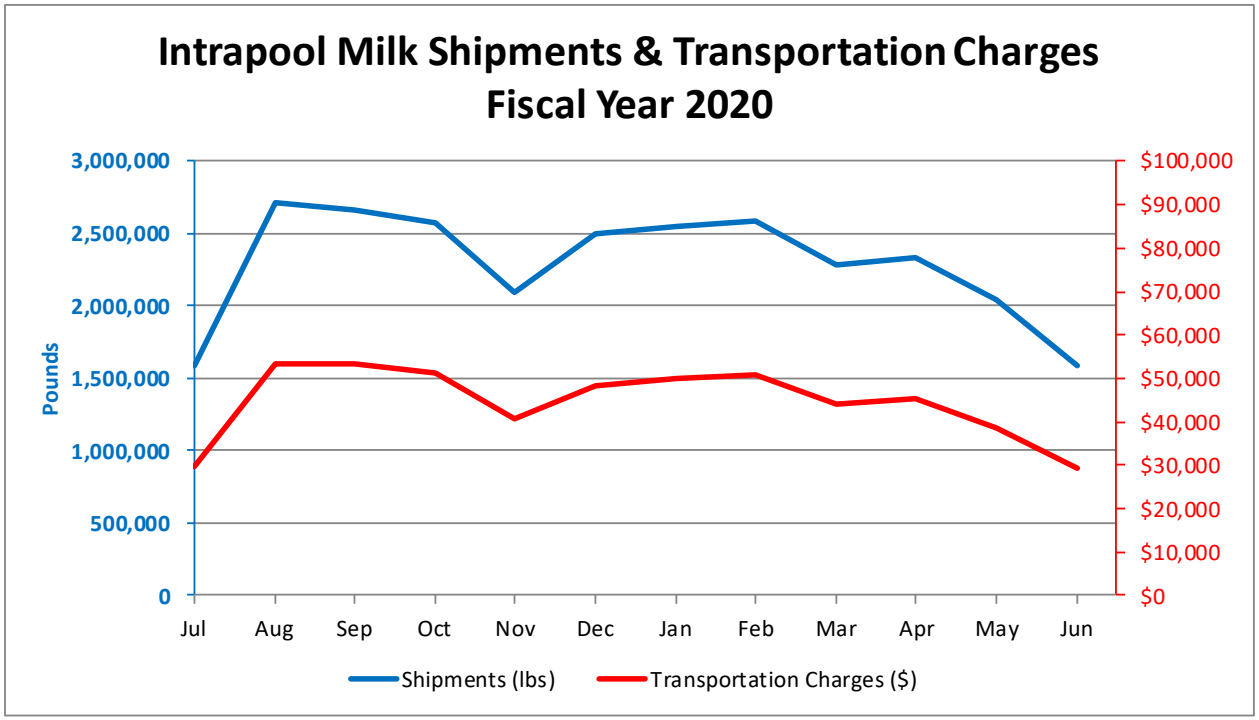

Montana Class I Utilization & U.S. Per Capita Consumption of Fluid Milk
Pool Milk Utilized as Class I Milk Consumed in Montana (lbs)
250,000,000
200,000,000
150,000,000
100,000,000
50,000,000
0
250
200
150
100
50
0
U.S. lbs/yr/person
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
FY2012
FY2013
FY2014
FY2015
FY2016
FY2017
FY2018
FY2019
FY2020
Montana Class I Utilization (lbs/yr)
U.S. Per Capita Annual Consumption of Fluid Milk (lbs/person/yr)


Montana Class I Utilization & U.S. Per Capita Consumption of Fluid Milk
80%
70%
60%
50%
40%
30%
20%
10%
0%
200
175
150
125
100
75
50
25
0
U.S. lbs/yr/person
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
FY2012
FY2013
FY2014
FY2015
FY2016
FY2017
FY2018
FY2019
FY2020
Montana Class I Utilization (as a Percentage of Pool Production)
U.S. Per Capita Annual Consumption of Fluid Milk (lbs/person/yr)

Adjustment for Transportation Charges of Intrapool Milk Shipments

A negative adjustment to the skim milk utilization value is made for transportation charges for shipments of unprocessed pool milk between pool plants. In fiscal year 2020, the skim milk utilization value was reduced by $534,910 for shipment of 27.5 million pounds of unprocessed pool milk ($1.94/cwt average freight rate). Overall, the adjustment for intrapool milk shipments reduced the value of pool production by approximately $0.215/cwt.

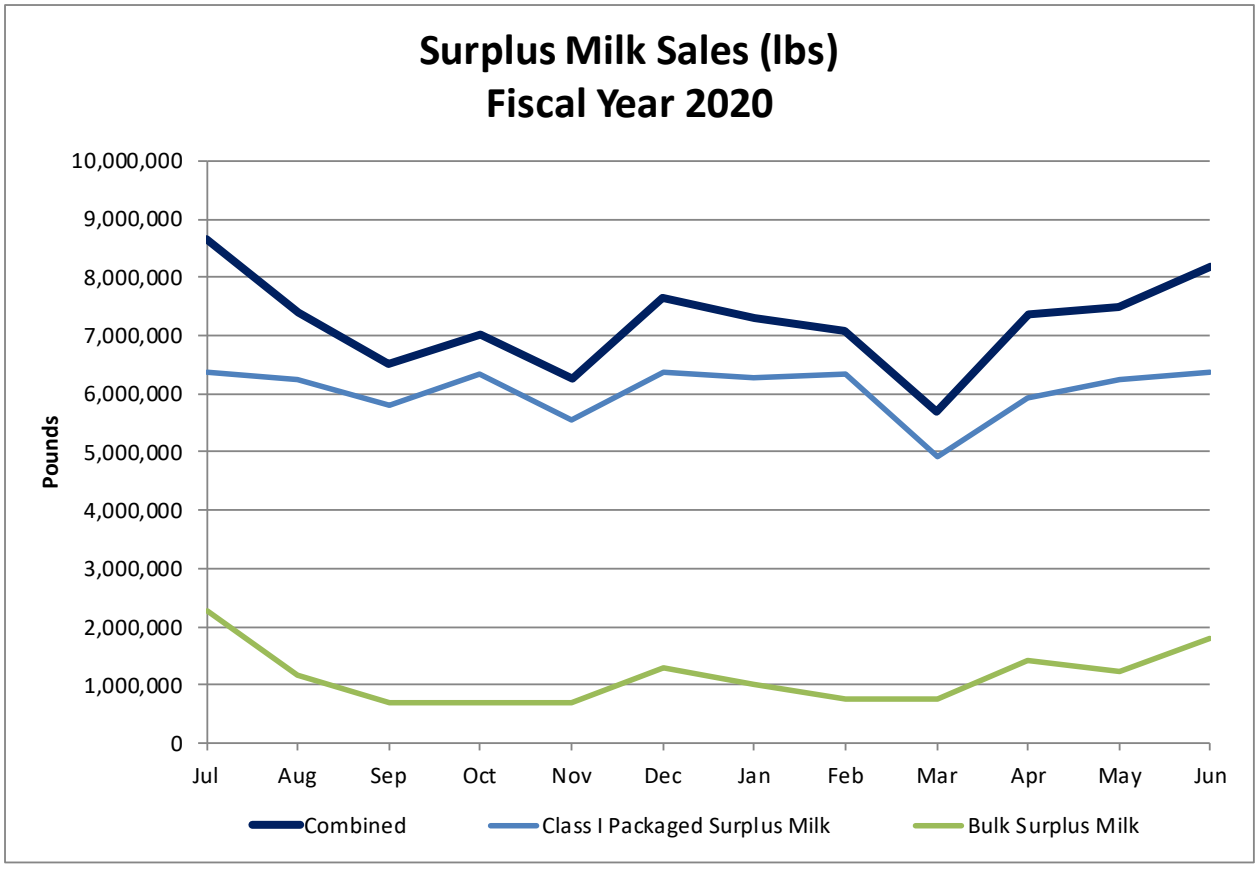
The following chart shows the volume of the intrapool shipments and total transportation charges for each month in fiscal year 2020. The charges were primarily driven by shipments from Meadow Gold – Great Falls to Meadow Gold – Billings. In fiscal year 2020, intrapool shipments of unprocessed pool milk also occurred from Meadow Gold – Great Falls to Meadow Gold – Billings; Meadow Gold – Great Falls to Darigold – Bozeman; and Darigold – Bozeman to Meadow Gold – Billings.

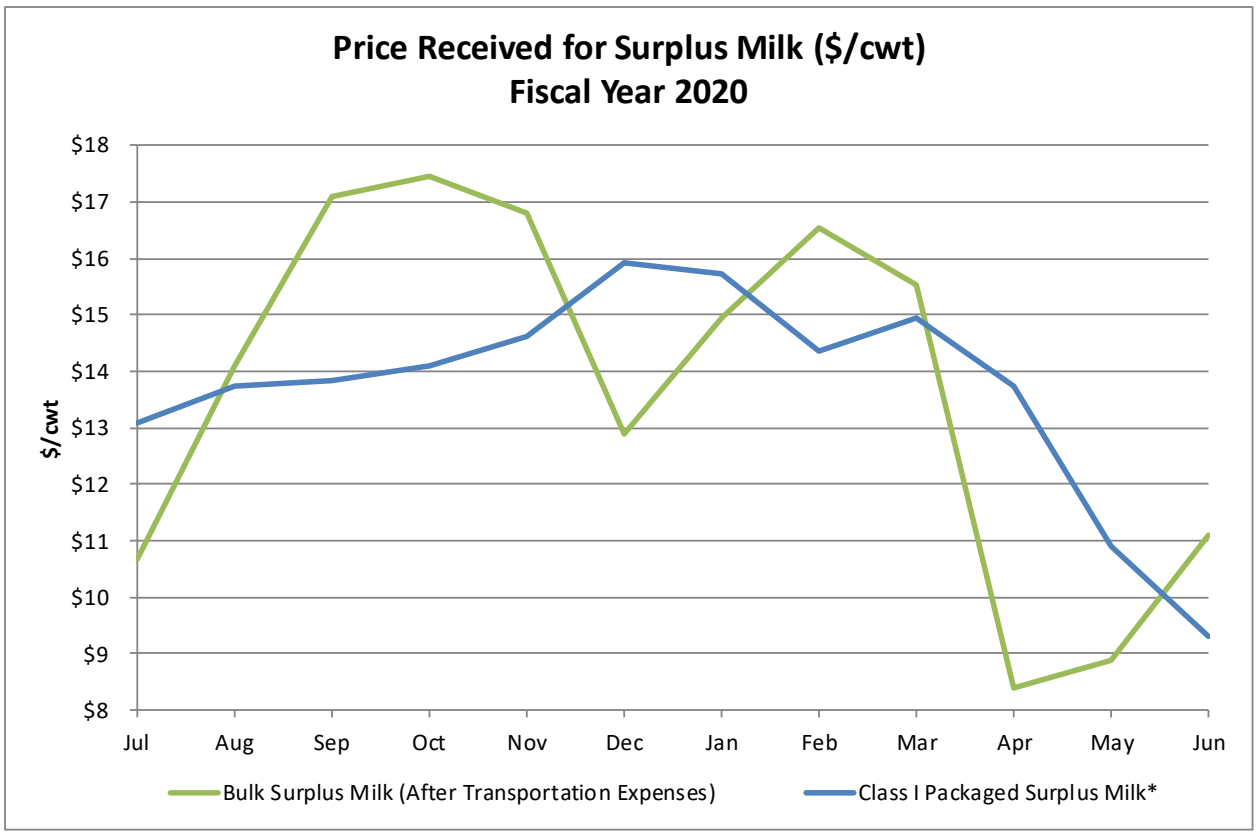


Sales of Surplus Milk

The following two charts show the monthly volume of sales of surplus milk by pool handlers and the unit price received for surplus milk sales after transportation expenses. Bulk surplus milk sales peak in the summer months because less Montana milk is utilized for Class I milk sold to schools and because Montana production peaks in late spring to early summer. The drop in Class I packaged surplus sales in March 2020 was caused by strong in-state demand for fluid milk occurring at the onset of the COVID-19 pandemic.

The value received for Class I packaged surplus milk is not directly comparable to the value received for bulk surplus milk (net of transportation expenses) because of the difference in butterfat content. The butterfat content in bulk milk tends to exceed 3.5%, whereas the butterfat content of Class I packaged milk tends to be about 2%. Butterfat is valuable. For Montana pool milk in fiscal year 2020, butterfat was over 18 times more valuable than skim milk. In determining whether Class I packaged surplus milk sales or bulk surplus milk sales are more economically advantageous to pool producers, an accounting of the value of butterfat removed from the milk processed into Class I packaged surplus milk is needed that considers bulk cream sales and Class III shrink of milk associated with processing raw milk for Class I packaged milk surplus sales. Bureau analysis of December 2018 surplus milk sales showed that, all things considered, processing raw milk for Class I packaged surplus sales contributed $4.06/cwt more to the pool utilization value than bulk surplus milk marketed to Class III processors. The Bureau believes that the conclusion of this economic comparison is valid for other months, with the economic advantage of processing surplus milk being higher or lower depending on the strength of the spot market in Idaho and Utah and the transportation expenses included in bulk surplus sales adjustments requested by pool handlers.





*The price received for surplus Class I packaged milk excludes the value of associated cream and shrink.

Adjustments for Surplus Sales

Class I Packaged Surplus Milk

In fiscal year 2020, surplus sales adjustments for Class I packaged surplus milk reduced the utilization value by $2,134,371 (an approximate $2.93/cwt negative adjustment on approximately 29% of pool production). Overall, the adjustment for Class I packaged surplus milk sales reduced the value of pool production by approximately $0.856/cwt.

Bulk Surplus Milk

In fiscal year 2020, surplus sales adjustments for bulk surplus milk reduced the utilization value by $363,013 (an approximate $2.62/cwt negative adjustment on approximately 5.5% of pool production). The adjustment was a negative adjustment every month but October 2019 and June 2020. Overall, the adjustment for bulk surplus milk sales reduced the value of pool production by approximately $0.146/cwt.

Each bulk surplus milk sale is classified (Class I, Class II, or Class III) based upon how the purchasing plant utilizes the milk. In fiscal year 2020, all bulk surplus milk sales were Class III utilizations, and the adjustment was calculated by subtracting the Montana Class III value and transportation expenses from the value received for the sale of bulk surplus milk. In April 2020, 106,146 lbs of milk was dumped due to market conditions attributable to the COVID-19 pandemic; because of the emergency rule adopted by the Board, this milk was treated as bulk surplus milk for which the proceeds were $0.

Combined Adjustments to Pool Milk Utilization Value

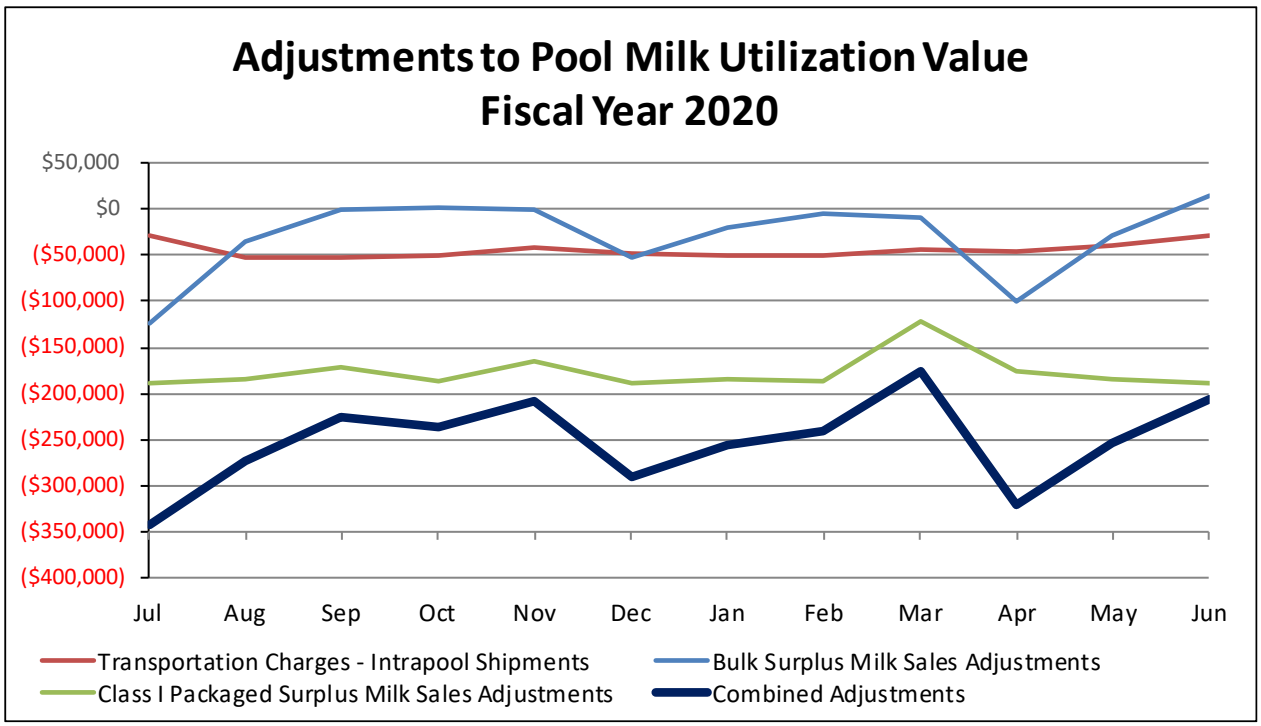
In fiscal year 2020, adjustments made for transportation charges for shipments of unprocessed pool milk between pool plants, Class I packaged surplus milk sales, and bulk surplus milk sales decreased the pool utilization value by 6.24%. The table below summarizes the adjustments and their impact in terms of dollars per hundredweight of pool production and percentage of unadjusted utilization value.

Adjustments to Pool Milk Utilization Value in Fiscal Year 2020

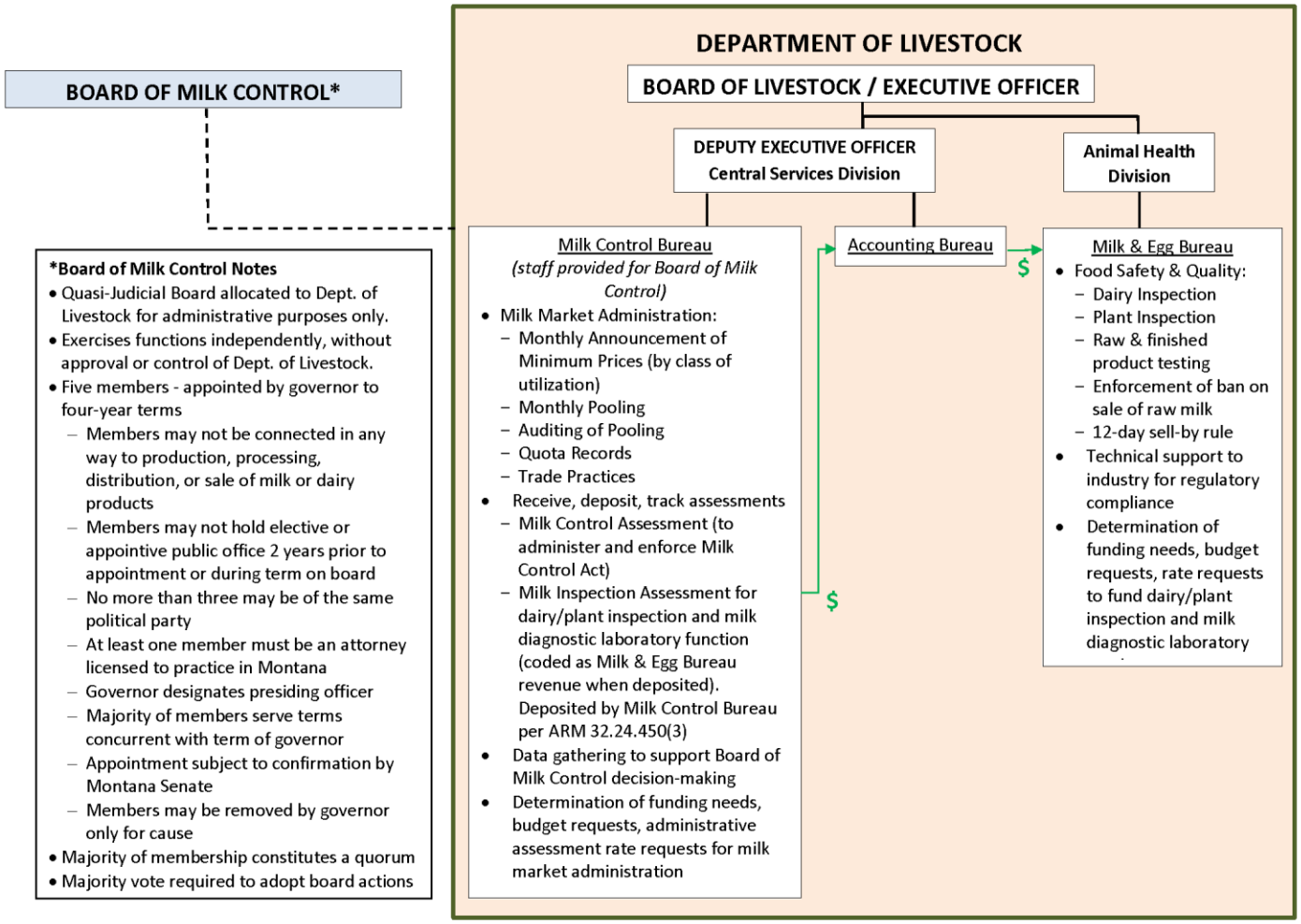
Adjustment Description	Adjustment to Pool Milk Utilization Value ($)	Adjustment to Pool Milk Utilization Value ($/cwt of Pool Production)	Adjustment as a Percentage of Unadjusted Utilization Value
Transportation Charges - Intrapool	($534,910)	($0.2146)	(1.10%)
Class I Packaged Surplus Milk Sales	($2,134,371)	($0.8561)	(4.39%)
Bulk Surplus Milk Sales	($363,013)	($0.1456)	(0.75%)
Subtotal	($3,032,294)	($1.2163)	(6.24%)

	Pool Milk Utilization Value ($)	Pool Milk Utilization Value ($/cwt at actual butterfat)
Unadjusted Value	$48,577,547	$19.4849
Adjustments	($3,032,294)	($1.2163)
Adjusted Value	$45,545,253	$18.2686

The following chart shows the adjustments made to the pool utilization value throughout fiscal year 2020.


Adjustments to Pool Milk Utilization Value
Fiscal Year 2020
$50,000
$0
($50,000)
($100,000)
($150,000)
($200,000)
($250,000)
($300,000)
($350,000)
($400,000)
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Transportation Charges - Intrapool Shipments
Bulk Surplus Milk Sales Adjustments
Class I Packaged Surplus Milk Sales Adjustments
Combined Adjustments

APPENDIX A – BOARD OF MILK CONTROL & RELATIONSHIP WITH MONTANA DEPARTMENT OF LIVESTOCK



APPENDIX B – PENALTY PROCESS SCHEMATIC